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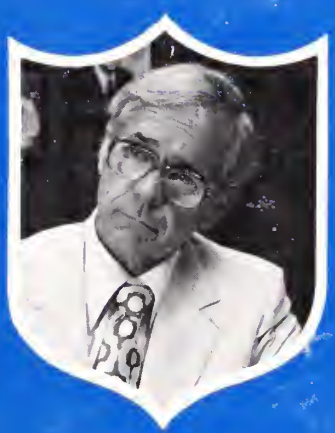
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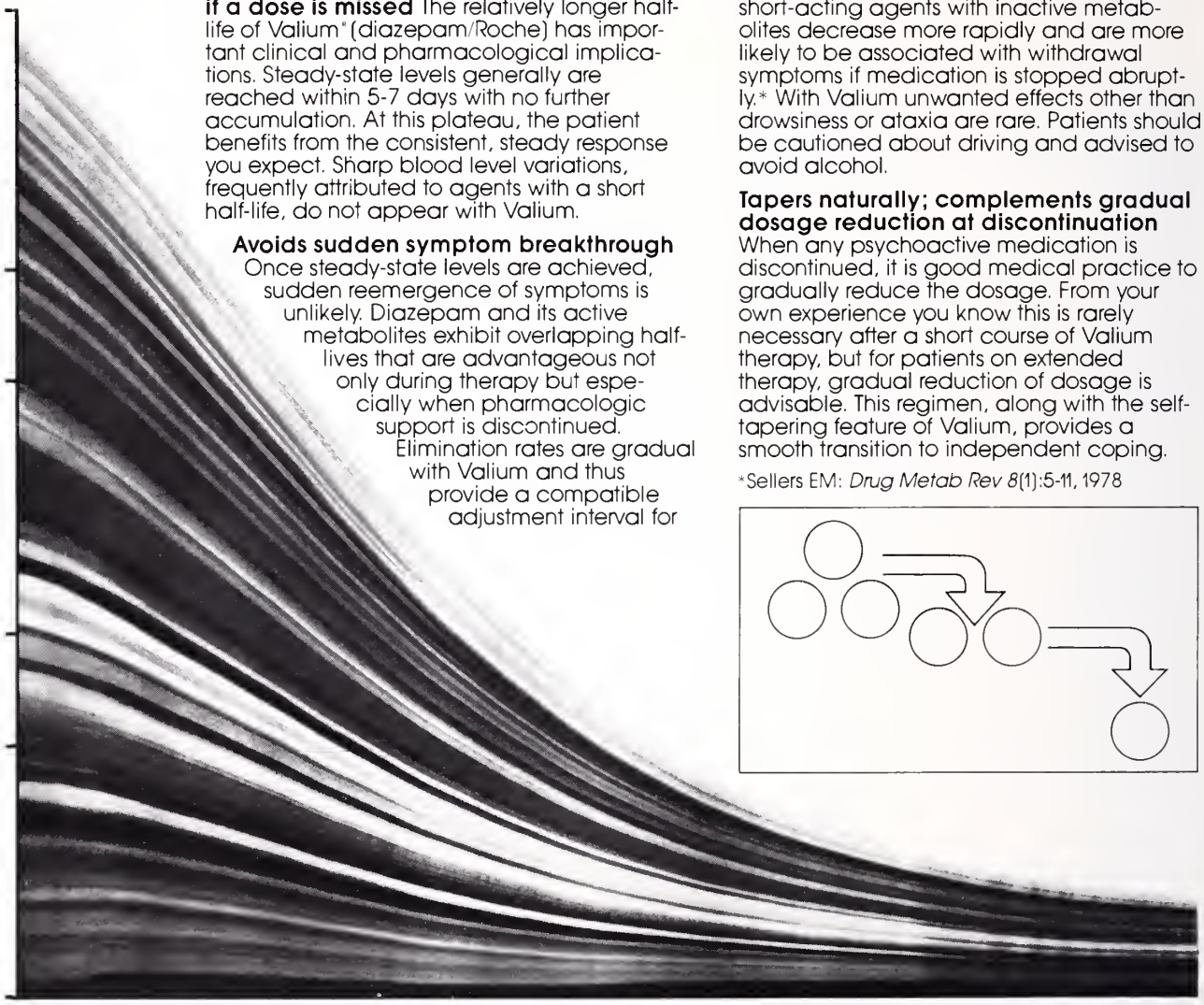
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*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978

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COX BROADCASTING 7,5)	5	12/23/74	42	740%
ROLLINS, INC	17	3/27/74	33	94%
JOHN HARLAND 8)	14	4/2/74	40	185%
BURNUP AND SIMS	19	4/15/74	15	(21%)
HOSPITAL CORPORATION OF AMERICA 1)	14	4/28/76	50	256%
AMERICAN MEDICORP 3)	7	4/28/76	23	228%
AMIC CORPORATION 6)	11	12/4/76	26	136%
UNITED GUARANTY 1)	10	12/4/76	29	190%
RMIC CORPORATION 2)	6	12/4/76	25	317%
MGIC	15	2/27/78	31	106%
CAPITAL CITIES 5)	28	2/27/78	66	135%
LEVITZ	23	5/12/78	29	26%
XTRA 5)	16	10/30/78	20	25%
EASTERN AIR LINES	9	10/30/78	9	0%
HUGHES TOOL 8)	28	2/7/79	72	157%
SYNTEX	38	8/2/79	52	37%
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GENERAL INSTRUMENTS	40	3/27/80	73	82%
McDONALD'S	38	3/27/80	47	24%
SMITH-KLINE	47	3/27/80	58	23%
SCIENTIFIC ATLANTA 5)	17	3/27/80	41	141%
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COVER

We wish to acknowledge the contribution made by the American Medical Association in designing the attractive cover of the December *Journal*. This credit was regrettably omitted at the time of publication.

Political leaders in Georgia are featured this month in special interviews by MAG staff. It is they who will influence legislation in the current General Assembly and the upcoming U.S. Congress. Find out more about their views on selected issues so you can influence them more effectively. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

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Letters to the Editor . . .

September's Editorial — "On Medical Ethics" — A Reader Responds to Another's Comments in November *Journal*

Dear Sir:

We are indeed fortunate to have such a knowledgeable physician [D. W. Fellner, Decatur] in our midst who needs no sharing of opinions, who has all the answers already on the tip of his tongue and who states the opinion one should have on the "Right to Life" by glibly stating, "I am totally in favor of abortion on demand" that he cannot tolerate a view which is in opposition to this fount of knowledge. [See the November *Journal*, p. 888.]

He is disgusted? Thousands of others are not only disgusted but fearful of such opinions. In the near future, as our population grows older due to the labors of physicians and researchers, is he going to be just as positive about euthanasia and "totally in favor" of it or will he be a bit more tolerant as he grows older and it grows closer to the time when HIS mercy pill is "to be given on demand" of the person in charge of his affairs?

Continue to print varying opinions!!! It is good for us all! But the dogmatic opinion from Donald W. Fellner, M.D., has no place in the inexact medical world. If we cannot add, let us not try to mold the opinions of others by a stainless steel which allows no growth or change.

Perhaps he does not feel the need for another physician to tell him what his moral responsibilities are but someone needs to. Hippocrates did a very good job of it hundreds of years ago.

Sincerely,
George T. Nicholson, M.D.
Fellow, American Academy
of Family Physicians
Cornelia, GA

P.S. Harry Truman said it right well. We know where babies come from and "if you can't stand the heat stay out of the kitchen."

Pro and Con Views Expressed About the *Journal's* Christmas Editorial

Dear Sir:

I was disturbed to see the editorial in the December, 1980 edition of the *Journal* entitled *Correcting a Bad Impression* by Daniel P. Matthews. This type of religious writing seems totally out of place in a journal representing the physicians of Georgia who subscribe to a wide variety of religious beliefs, as well as the right to not believe. Certainly the *Journal* is not intended to promote Christianity but to promote quality medical care in the state of Georgia, as well as to represent all of the physicians who are members of the organization.

Please let me know if I misunderstand the purpose and intent of the *Journal*.

Sincerely,
Arnold J. Tillinger, M.D.
Savannah

Dear Sir:

You have received so many accolades for the *Journal* that another is surely not needed, but I did want to say that the editorial, "Correcting a Bad Impression," by the Rev. Daniel P. Matthews seemed to me not only timely but a valuable and interesting addition to the *Journal*. Perhaps you should think of having a regular feature such as this of a philosophical or religious or moralistic turn.

Best regards,
Charles R. Underwood, M.D.
Marietta

Dear Sir:

As a member of MAG and a practicing Georgia physician for ten years, I was appalled to find in our *Journal* (December 1980) under the heading of "Editorial" the article "Correcting a Bad Impression." A religious statement such as this does not belong in a medical journal.

As a Jew, I am deeply offended by the content of this article. Rather than conveying a message of harmony and brotherhood, which should be in all of our hearts during the season of Hannukah and Christmas, Mr. Matthews has chosen to make a prejudicial and inflammatory statement, an insult to anyone who may not believe that G-d [sic] has yet appeared in the flesh.

Perhaps the most distressing thought is that you have labelled this an editorial. By so doing, you assume full responsibility for its contents. In this regard, I withhold my respect and my dues until such time I find in print in your journal an apology for having printed this insulting and inappropriate "editorial."

Yours truly,
Sanford V. Berens, M.D.
Savannah

(The editor regrets any offense to any religious group engendered by the December, 1980, "Editorial." Such was not intended, and we apologize.)

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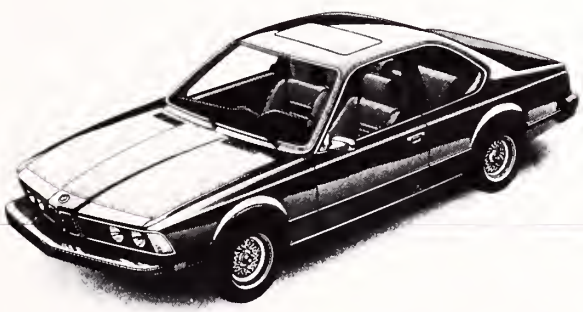
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Incidental Intelligence . . .

Continued Positive Response From MAG Members Re Establishing Physician-Owned Professional Liability Insurance Company

The MAG Executive Committee has reaffirmed MAG's interest in pursuing the possibility of establishing a physician-owned professional liability insurance company. Results of an all-member mail survey indicate considerable interest throughout the state in this project. The initial responses indicate a commitment from 2,000 MAG members to participate, and additional similar responses are being received each week.

McNeary Insurance Consulting Services, Inc., of Charlotte, North Carolina, has been chosen to provide specific data as to requirements to be met in establishing a company. Facts will be available to present to the MAG Board of Directors at its January, 1981, meeting as to the amount of capital required and the probable premium structure necessary. Recommendations will be made as to the type of company that would be most desirable and the most feasible way of obtaining capital.

Contributions of $100.00 have been received from over 450 members to finance the feasibility study and planned development of the insurance corporation. This number is not final as checks are continuing to come in. Various means are being studied to appropriately recognize those contributing by considering them as charter and privileged members of the company if one is formed.

Information is available from 24 other physician-owned companies, which now insure 40% of the nation's physicians. This makes an analysis of Georgia's situation considerably less difficult and involved. (In other words, we aren't having to "re-invent the wheel.")

Prospects are to have all information available to present to the House of Delegates at the Annual Session in May, 1981, allowing the opportunity for a final decision on whether or not to proceed with the formation of an insurance company.

AMA Jail Program Appeals to Local M.D. Sense of Duty

A roadblock has appeared in the AMA's hard-driving program to upgrade health care in the nation's jails — that widely acclaimed program in which many state medical associations have cooperated. The roadblock is the imminent cutoff in funds from the Law Enforcement Assistance Administration (LEAA). The future existence of this agency is questionable.

With the help of the 23 participating state medical associations, the AMA will continue its accreditation program; its efforts to expand the accreditation drive to the rest of the states; its dissemination of training materials; and its advisory and coordinative role.

The main effect of the funds cutoff will be a shrinkage in the local on-site technical aid provided to the jails by trained specialists from the state medical societies. The program has provided on-site technical assistance directly to jails which has enabled jails to meet AMA health-care accreditation standards.

It is up to local communities, including their medical societies, to come forth with initiatives that can help keep the jail program rolling — and thus keep often untried inmates from being medically neglected. To bridge the technical-assistance gap, local communities will have to draw heavily on their own expertise and ingenuity. The challenge is civic and medical — and the benefits yield cost savings and certainly a greater cost effectiveness.

A well-integrated system of care, with standard in-house services and prudent arrangements with outside providers, can save costs as well as health. In jails with adequate health care systems inmate complaints are often ineffective in the courts. Medical societies can help achieve this kind of system — and have done so.

PIP Continues to Expand

In response to MAG's **Physician Involvement Program (PIP),** over 1,000 Georgia physicians and MAG members have volunteered to spend at least one day at the Capitol when the 1981 Georgia General Assembly convenes in January. Of those who have volunteered, however, only 270 have firmly committed to a specific day that they will be at the Capitol. By the time the Assembly convenes, we expect more of those who have already volunteered to commit to a specific date, and we also expect to have received even more physician volunteers in this essential program. For more information or to sign up for the program, contact Ms. Carol Greene at MAG Headquarters: (Atlanta) 876-7535, or toll-free 1-800-282-0224.

What Is Doctors' Day?

In 1980, members of the Auxiliary to the Floyd-Polk-Chattooga Medical Scociety, a component of the Auxiliary to the MAG (A-MAG), went all-out in their efforts to educate their community on the subject. Their successful work has again brought them a monetary award and the coveted 1st place bronze trophy given each year by the Southern Medical Association Auxiliary (SMA-A) to the individual auxiliary in the South which best exemplifies the reasons for spotlighting physicians on March 30th.

In the week preceding March 30, 1980, the 95-member winning group instigated the following major activities:

—A proclamation from the Rome City Commission in appreciation of the annual re-dedication of local physicians to their profession.

—A film shown in the schools on immunization.

—Two 1-hour programs on Channel 10, their local TV station, featuring two physicians who discussed medical history in Rome and told about current facilities in the three-county area.

—A window display in the Chamber of Commerce building, with a listing of all physicians practicing in the community.

—Periodic news releases to all media (newspapers, church bulletins, radio, television).

—Bank displays, including a turn-around sign in front of one bank in the Riverbend Mall.

—A party at the Rome Little Theater where players gave a comedy skit about physicians and hospitals.

—The puppet show, "Drugs Are a Drag," given at a local elementary school.

—Blood donations to the Red Cross from 12 physicians' wives.

—Checks in honor of area physicians to the William R. Dancey Student Loan Fund, the Rome Center for the Performing Arts for their building fund, and the AMA's Education and Research Foundation.

—A commemorative tree planted on the grounds of the Northwest Georgia Regional Hospital.



Mrs. Russell E. Andrews, Jr., Councilor from the Auxiliary to the MAG to the Southern Medical Association (SMA) Auxiliary, accepted trophies for the Floyd-Polk-Chattooga and Tift County Auxiliaries at SMA's annual meeting in November, 1980, in San Antonio, Texas.

—Nursing scholarships to Floyd Junior College and subscriptions to two nursing journals.

Doctors' Day co-chairmen for the Floyd-Polk-Chattooga Auxiliary were Mrs. Larry Formby and Mrs. Russell E. Andrews, Jr. Mrs. Andrews accepted the awards as well as those given to the Tift County Auxiliary for second place at a luncheon held at the annual meeting of the SMA in San Antonio, Texas, in November, 1980.

***(Reported by Evelyn Gay [Mrs. Brit B.], A-MAG Historian and Editor of* Pulse Line.**

CSBME To Implement State Marijuana/THC Research Program

In the 1980 legislative session, the Georgia General Assembly drafted legislation to establish and provide for the administration of a Controlled Substances Therapeutic Research Program. The purpose of this program is to evaluate the use of both marijuana and Δ-9, tetrahydrocannabinol (THC) in cancer patients for relief of nausea and vomiting associated with cancer chemotherapy after failure of conventional anti-emetic therapy. This act, known as the Controlled Substances Therapeutic Research Act, was signed into law on Feb. 22, 1980.

A program implementing the provisions of this act has been established under the Composite State Board of Medical Examiners (CSBME) in the office of Secretary of State David B. Poythress. This program makes marijuana or THC capsules available to patients who meet the requirements of the state's protocol. Each case is reviewed by the Patient Qualification Review Board, which was established by the Medical Board to screen applicants.

This research program differs from other research programs in the state in that THC is available both in marijuana cigarettes and in capsules. The research protocol provides for randomizing patients to establish whether pills or cigarettes are provided and to establish the dosage regimen. Patients with GI obstructions are excluded from randomizing so that they are not exposed to capsules. Similarly, patients who do not wish to smoke are also excluded from the randomization procedures.

If you have any patients who might qualify, and if you would like more information about how to participate, contact the CSBME at (404) 656-3923.

Clinical Center Study of Young Patients With Malignancies

The cooperation of physicians is requested in the referral of young patients with malignancies for studies being conducted by the National Cancer Institute, Pediatric Oncology Branch, at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Patients with acute leukemia, neuroblastoma, rhabdomyosarcoma, Ewing's sarcoma, osteogenic sarcoma, and non-Hodgkin's malignant lymphoma (especially Burkitt's lymphoma) are eligible for these studies. Those selected for the program will generally have received no previous definitive therapy. Clinical trials involve evaluation of new combinations of chemotherapy, radiotherapy, surgery, and biologic response modifiers.

There will be no cost to the patient for evaluation, treatment, travel (except for the first trip), hospitalization, or ambulatory care related to these clinical trials. For more information, contact: Attending Physician, Pediatric Oncology Branch, NCI, Building 10, Room 3B-12, National Institutes of Health, Bethesda, Maryland 20205, Telephone (301) 496-4256.

New Administration Offers Hospitals Larger Role in Shaping Health Programs

As a result of the November 4 elections, hospitals can expect a more thorough review of regulations they feel have hampered their activities — this according to Pamela Needham, director of government affairs of the American Hospital Supply Corporation.

The new administration is expected to use private-sector initiatives, rather than government regulation, to "get the most out of the federal dollar," said Needham. This philosophy, teamed with major changes in the U.S. Senate, assures that federal programs for financing and delivering health care will be under closer scrutiny.

Needham also pointed out significant changes in the leadership of important Congressional health-care committees. Chairmanship of the Senate Human Resources subcommittee on health, for example, will change from Ted Kennedy (D-Mass) to the Republicans. Orrin Natch of Utah is the committee's ranking Republican. This makes the next 2 months prime time for hospitals to contact newly elected representatives to signal support for this private-sector philosophy.

New Nursing Home, The Florence Hand Home, Opened in LaGrange

West Georgia Medical Center in LaGrange has added a $4.6 million long-term care facility, the Florence Hand Home. The 150-bed nursing home offers skilled and intermediate services.

The 71,000-square-foot facility was opened in October, 1980, and is part of a medical center complex that also includes a 276-bed acute-care hospital, heart clinic, cancer clinic, renal dialysis department, and medical park with 18 physicians' offices. All services of the medical center are available to residents of Florence Hand Home, including 24-hour emergency room service, laboratory, radiology, respiratory therapy, and physical therapy. George A. McCrary, M.D., is the medical director.

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A private, comprehensive mental health center designed and staffed to meet the individual needs of patients by provision of a therapeutic milieu and the following specialized treatment programs:

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A plan that focuses on the particular requirements of the patient is drawn up by his or her personal psychiatrist. It includes, in addition to the milieu approach, group, recreational, horticultural and occupational therapy.

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February 25—March 2, 1981
Seminar II
February 27—March 2, 1981
Mardi Gras Day
March 3, 1981

Topics:

Basic Microscope Techniques
Setting Up a Lab
Acute Management of the Multiple Trauma Candidate Requiring Reimplantation
Esophageal Reconstruction with Vascularized Jejunal Interposition
Head and Neck Reconstruction Via Microsurgery
Mandibular Reconstruction with Vascularized Bones and Soft Tissues
Toe to Hand Transfers
Cancer and Microsurgery
Geometry of and Planning of Microsurgery Free Flaps
Bracheal Plexus and Peripheral Nerve Microsurgery
Intracraneal Neuromicrosurgery
Urologic Microsurgery, Including Reconstructive, Replantation and Infertility
Gynecological Microsurgery Reconstruction and Infertility
Chest Wall Reconstruction with Microsurgery
Microsurgery and Trauma
Orthopedic Applications of Microsurgery
Microsurgery

Program:

The course consists of two seminars:

Seminar I A lab and alecture series, Wednesday, February 25 through Monday, March 2.
19 hours lecture and 21 hours lab, which includes basic techniques with personalized instruction from visiting faculty using Applied Fiberoptics binocular microscopes.

Seminar II A lecture and video series, Friday, February 27 through Monday, March 2.
19 hours lecture and simultaneous video sessions to coincide with the labs.

Accreditation:

As an organization accredited for continuing medical education, Louisiana State University School of Medicine, New Orleans, designates this continuing medical education activity as meeting the criteria for forty credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

Registration:

Tuesday, February 24, 1:00—4.00 PM
Daily from 7:00 AM
A registration fee of $600.00 for Seminar I, or $300.00 for Seminar II should accompany the registration form.
There is a $50.00 cancellation fee for withdrawals after February 11, 1981. All refunds must be requested in writing and postmarked no later than February 20, 1981. ***Residents half fee.***

Inquiries:

Multidisciplinary Microsurgery at the
Mardi Gras
Southern Baptist Hospital
2700 Napoleon Avenue
New Orleans, Louisiana
(504) 899-9311

MEDICAL MEETING CALENDAR

JANUARY

19-24—*Augusta;* **FAMILY PRACTICE SYMPOSIUM;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

22-24—*Charleston, SC;* **ALLIANCE FOR CONTINUING MEDICAL EDUCATION;** Contact: Lewis Miller, ACME, 322 Westport Ave., Norwalk, CT 06851. PH: 203/864-3441.

24—*Atlanta;* **22ND AMA NATIONAL CONFERENCE ON THE MEDICAL ASPECTS OF SPORTS;** Category 1 credit; Contact: AMA Dept. of Meeting Services, 535 N. Dearborn St., Chicago, IL 60610. PH: 312/751-6000.

24-26—*Atlanta;* **AMA WINTER SCIENTIFIC MEETING;** Category 1 credit; Contact: Council on Cont. Physician Education, AMA, 535 N. Dearborn St., Chicago, IL 60610. PH: 312/751-6000.

24-31—*Snowmass, CO;* **FIFTH ANNUAL CONFERENCE ON PAIN: FACIAL AND NECK PAIN;** Category 1 credit; Contact: Ronald G. Havican, Ctr. for Rehab. Med., Emory Univ. Sch. of Med., 1441 Clifton Rd., NE, Atlanta 30322. PH: 404/329-5507.

26-31—*Puerto Rico;* **PEDIATRICS IN REVIEW — 1981;** Contact: Judson Hawk, Jr., M.D., Scottish Rite Hospital for Crippled Children, 1001 Johnson Ferry Rd., Atlanta 30342.

26-February 6—*Atlanta;* **LAB DIAGNOSIS OF VIRAL DISEASES;** Contact: Center for Disease Control, Bureau of Labs, 1600 Clifton Rd., Atlanta 30333.

FEBRUARY

2-5—*Miami, FL;* **FLORIDA MIDWINTER SEMINAR IN OPHTHALMOLOGY AND OTOLARYNGOLOGY;** Contact: Florida Midwinter Seminar, Univ. of Miami Sch. of Med., 405 NE 144 St., Miami, FL 33161.

5-7—*Lexington, KY;* **FIBEROPTIC BRONCHOSCOPY;** Category 1 credit; Contact: Frank R. Lemon, M.D., Cont. Educ., College of Med., Univ. of Kentucky, Lexington, KY 40536. PH: 606/233-5161.

5-8—*Atlanta;* **WORKING WITH DSM-III;** Contact: W. Theron McLarty, Jr., M.D., Ridgeview Institute, 3995 S. Cobb Dr., Smyrna 30080. PH: 404/434-4567.

15-20—*Lexington, KY:* **TWELFTH FAMILY MEDICINE REVIEW-SESSION I;** Category 1 credit; Contact: Frank R. Lemon, M.D., Cont. Ed., College of Med., Univ. of Ky., Lexington, KY 40536. PH: 606/233-5161.

16-20—*Savannah;* **CURRENT METHODS IN BLOOD BANKING AND IMMUNOHEMATOLOGY;** Contact: American Society of Clinical Pathologists, 2100 W. Harrison, Chicago, IL 60612.

17-18—*Gainesville, FL;* **FLORIDA SYMPOSIUM ON MICRONUTRIENTS IN HUMAN NUTRITION;** Contact: James R. Kirk, Chrmn., Food Science and Nutrition Dept., Univ. of Florida, Gainesville, FL 32611.

18-24—*Cancun, Mexico;* **ADVANCES IN CLINICAL MEDICINE;** Category 1 credit; Contact: Michael B. Kessler, M.D., Director, Physicians Medical Seminars, 970 Clemenstone Dr., Atlanta 30342. PH: 404/971-8797.

22-25—*New Orleans, LA;* **SOUTHEASTERN SURGICAL CONGRESS 49TH ANNUAL ASSEMBLY;** Category 1 credit; Contact: Southeastern Surgical Congress, 315 Boulevard, Ste. 500, Atlanta 30312. PH: 404/681-3636.

25—*Columbus;* **MEDICAL COLLECTIONS MANAGEMENT;** Contact: Sheila Carson, MAG, 938 Peachtree St., NE, Atlanta 30309. PH: 1-800-282-0224 (toll free in Georgia) or 404/876-7535.

25-26—*Atlanta;* **STARTING YOUR PRACTICE;** Category 1 credit; Contact: Sheila Carson, MAG, 938 Peachtree St., NE, Atlanta 30309. PH: 1-800-282-0224 (toll free in Georgia) or 404/876-7535.

27-28—*Atlanta;* **CARDIAC REHABILITATION;** Category 1 credit; Contact: International Med. Educ. Corp., Div. of Postgrad. and CME, 64 Inverness Dr., East, Englewood, CO 80112. PH: 303/773-1144, 1-800-525-8646 (toll free).

MARCH

2-6—*Chicago, IL;* **70TH ANNUAL MEETING OF THE U.S.-CANADIAN DIVISION OF THE INTERNATIONAL ACADEMY OF PATHOLOGY;** Contact: Nathan Kaufman, Sec.-Treas., U.S.-Canadian Div. of the International Academy of Pathology, 1003 Chafee Ave., Augusta 30904. PH: 404/724-2973.

3-6—*Durango, CO;* **EMERGENCY MEDICINE — TRAUMA;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

4-6—*Houston, TX;* **MOLECULAR INTERRELATIONS OF NUTRITION AND CANCER;** Contact: Stephen C. Stuyck, Director, Public Information and Education, M.D. Anderson Hospital and Tumor Institute, Houston, TX 77030. PH: 713/792-3030.

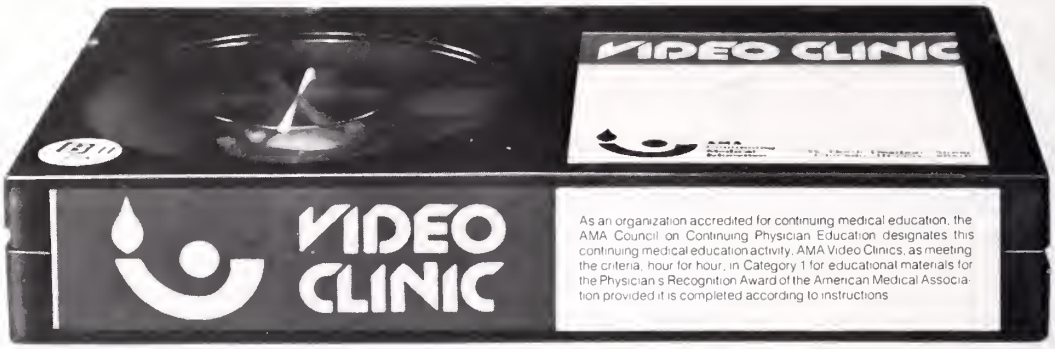
8-11—*Denver, CO;* **FOURTH ANNUAL CONFERENCE ON RURAL PRIMARY CARE;** Contact: National Conference, NRPCA, Box 1211, Waterville, ME 04901. PH: 207/873-1127.

8-15—*Maui, HI;* **POSTGRADUATE COURSE IN SPORTS MEDICINE;** Category 1 credit; Contact: Marianne Porter, Ctr. for Sports Medicine, 303 E. Chicago Ave., Chicago, IL 60611. PH: 312/649-7959.

Information on upcoming medical meetings should be sent well in advance to: Education Division, Medical Association of Georgia, 938 Peachtree St., NE, Atlanta, GA 30309.

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Anxiety: the therapeutic dilemma



National authorities offer views and insights Are minor tranquilizers overused? Is anxiety overdiagnosed? Do antianxiety drugs create other clinical problems? What are the alternatives?

These and other critical questions will be examined in a one-day symposium and workshop at the Tulane Medical Center, New Orleans, on February 14, 1981. Eminent physicians will discuss aspects of treatment including (1) recognition and management of the dependence-prone patient, (2) ways to minimize tranquilizer dependency, (3) current information on the biochemistry of anxiety and (4) how it can affect treatment modalities.

Unique interactive format offers direct participation Filmed case presentations provide source material for participant interaction — to demonstrate keys to differential diagnosis and clarify guidelines for selecting appropriate drug and non-drug therapies.

Program Topics and Faculty	
The Clinical Spectrum of Anxiety	Michael J. Halberstam, MD, Private Practice, Internal Medicine and Cardiology, Washington, DC; Editor, Modern Medicine; Associate Clinical Professor of Medicine, George Washington University Medical Center
Anxiety: Etiology and Dynamics	Sidney L. Werkman, MD, Professor of Psychiatry, University of Colorado School of Medicine
Differential Diagnosis of Anxiety	Robert E. Rakel, MD, Professor and Head, Department of Family Practice, The University of Iowa College of Medicine
The Problem of Drug Dependence	David H. Mielke, MD, Associate Professor of Psychiatry, Tulane University School of Medicine
Pharmacology and Pharmacokinetics of the Minor Tranquilizers	Leo E. Hollister, MD, Professor of Medicine, Psychiatry and Pharmacology, Veterans Administration Medical Center and Stanford University School of Medicine
Benzodiazepine Receptors	Solomon H. Snyder, MD, Chairman & Professor, Department of Neuroscience, Distinguished Service Professor of Neuroscience, Psychiatry and Pharmacology, The Johns Hopkins University School of Medicine
Management Approaches to the Patient With Anxiety	Julius Michaelson, MD, Past President, American Academy of Family Physicians
Tranquilizers: Guidelines for Appropriate Use	Robert E. Rakel, MD, Professor and Head, Department of Family Practice, The University of Iowa College of Medicine
Non-Drug Treatment Alternatives	Sidney L. Werkman, MD, Professor of Psychiatry, University of Colorado School of Medicine
	Other members of the symposium faculty, from the Tulane University School of Medicine, include John W. Goethe, MD and Daniel K. Winstead, MD.

Eight credit hours in Category 1 for PRA/AMA, Prescribed hours by AAFP, Category 2-D of AOA and/or Formal Learning cognates of ACOG will be awarded.

Anxiety: The Therapeutic Dilemma is being produced in collaboration with Tulane University School of Medicine, Department of Psychiatry and Neurology, by M.E.D. Communications, under an educational grant from Abbott Laboratories.

A

Office of Continuing Education, Tulane Medical Center,
1430 Tulane Avenue, New Orleans, Louisiana 70112.

Please send full information about the symposium
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JOURNAL
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Georgia's Elected Officials Speak to Doctors*

In December, 1980, the Medical Association of Georgia interviewed four members of the United States Congress and seven members of the Georgia General Assembly on issues relating to medical issues in our state. Their answers give us an opportunity to assess their positions and afford us insight into how we physicians can more directly influence their decision-making.

QUESTIONS ADDRESSED TO MEMBERS OF THE U.S. CONGRESS

1. **Republicans now have control of the Senate, and it appears the complexion of that body is far more conservative than in recent years. Do you feel Congress will lessen governmental regulations of business, and specifically medicine? Of particular concern to physicians are bureaucracies such as the Federal Trade Commission (FTC).**

CONGRESSMAN BO GINN — The people of the United States sent a powerful message to the Oval Office in November, but they also sent the same message to the Congress. I anticipate that we will continue to increase the momentum of work to reduce the federal regulatory burden, including that burden generated by the Federal Trade Commission. My personal objective is that the 97th Congress be remembered as the Congress which locked the brakes on runaway regulations and enacted an administrative ruling act for the congressional veto on any proposed regulations.

CONGRESSMAN JACK BRINKLEY — I believe that the 97th Congress will pass a bill captioned *regulatory reform* which will encompass "sunset laws" and perhaps a congressional veto. I believe the FTC will be on a short leash, . . . that the tether of many such government bureaus will be shortened. So overall, I think that the more conservative complexion of both the House and Senate will restrain government, which I think will be good. Now in the area of medicine, I think that in terms of remuneration, in terms of compensation, I think there might be even tighter accountability of the programs themselves and the program managers. I hope that that accountability will not be translated into increased paperwork on the part of the practitioners themselves, however. As a matter of fact, there is no reason in the world why paperwork couldn't be minimized by the strict accounting of people who approve Medicaid patients and things like that.

CONGRESSMAN WYCHE FOWLER — I would anticipate a continuation of that trend towards paring back unnecessary federal regulations of the private sector in the 97th Congress. Certainly, the election results in November should strengthen the deregulation mood in Congress. It will be interesting to see how the new Senate leadership feels about the specific details of deregulation proposals, because we have noted from time to time that certain Republicans have become concerned when we have gotten down to the specific details of deregulation legislation as opposed to just the general idea . . . but you'll at least see a continuation of the deregulation mood to substantially reduce regulation in transportation, industry, and banking. As far as the FTC and other regulatory agencies, there probably will be more of a fight on substantial alterations in those entities. But it's hard to say exactly what direction the fight will take. For one thing, the Reagan administration will be working overtime placing its own appointees into positions with these regulatory agencies, varying with the time of service for each commissioner or each agency person. But at least one could say that eventually the composition of the regulatory agencies will change as the philosophical orientations of the individuals in the agencies change . . . [so] the Congress is in a position of waiting to

* This article is based on a series of interviews conducted by Gary Price and Rusty Kidd of the MAG staff.

see what new directions are taken by these regulatory agencies under a Reagan administration. Secondly, there is the question of congressional input into regulatory proceedings. I have backed Congressman Levitas' administrative rule to make legislation provide for more regularized congressional input into agency rule-making decisions. That fight will be interesting — to see what attitude the Reagan administration will take on the exercise of legislative vetoes or other forms of congressional control over the bureaucracy. And actually, what position the Reagan administration takes will have a lot to say about whether such legislation can be enacted. In other words, if the Reagan administration opposes such legislation as strongly as the Carter administration did, then it may be very difficult to enact more extensive legislative review proceedings in the next session of Congress.

2. What are your personal views of such legislation as Certificate of Need (CON) and Cost Containment?

CONGRESSMAN FOWLER — I did support the general thrust of the notion of the CON program; that is providing state and local input in the decision making and balancing health care capital expenditures with local service needs. I realize, however, that certain problems have developed with the program. I would not be prepared to . . . urge repeal at this time, but would prefer to work to improve the present process and try to involve the providers in a more meaningful way in the decision-making process. On Cost Containment . . . my position on this will be determined when and if such legislation is redrafted and resubmitted in the next session . . . [and] will be determined by how well the voluntary program performs in the interim. I would like to see it work out. Some of the figures I received are conflicting, and some from the American Hospital Association troubled me somewhat for the period from August '79 to August '80. A continuation of the cost of hospital care outstripping the general level of inflation is troubling to me, but I am prepared to wait and see how well the voluntary program performs over the next few months between now and the time that the 97th Congress would have a chance to consider control of hospital costs.

CONGRESSMAN BRINKLEY — There are cases, no doubt, when hospitals should not build things which are redundant of services provided right around the corner but to extend that to physicians' offices, for example, is way out of bounds. I mean, if we believe that this country is the land of the free, and we are sensitive about our liberties and the right to live our lives as we choose within the boundaries of law, I think that any amplification of CON would be more restrictive of one's free choice. It would not be in the best interest of the country or of the individual impacted upon, so I think any expansion of that would certainly undergo careful scrutiny and would be rejected.

CONGRESSMAN LARRY McDONALD — A CON, whether administered directly by the federal government or indirectly by the states is harmful to medical care. It infringes upon the doctor/patient relationship, increases costs for physicians and hospitals (which must eventually be paid by the patient), politicizes medicine, and allows regional bureaucrats to make decisions which are best left to local decision makers in health care institutions. My position is very clear on CON. In the 96th Congress, I was the prime sponsor of a bill to repeal titles XV and XVI of the Public Health Service Act. In addition, I and several other conservative congressmen unsuccessfully urged our colleagues to vote against reauthorization of the National Health Planning and Resources Development Act of 1974. Federal health planning, by its very nature, will lead to total control of health care. For example, a decision to build a new hospital or clinic or to purchase new equipment — such as a CAT scanner — is not being determined by the demand for medical services by the people of a given area. Rather, it is being determined by officials of a health systems agency (HSA) who, in conjunction with officials at the Dept. of Health and Human Services (HHS), appropriate "regional planning centers" and attempt to determine if the proposal is in accord with the "national health priorities" as set by Congress and the "national guidelines for health planning" as issued by the Secretary of HHS. Thus, decisions affecting the health of millions of people go through layer after layer of regional health planners before anything can be done, and in many cases bureaucrats decide that new equipment or facilities are not needed despite the demonstrated local need. I shall continue to push for a repeal of Titles XV and XVI.

3. As physicians become more interested in the legislative process, how do you recommend that they become more involved?

CONGRESSMAN GINN — It is essential that physicians take an expanded role in the legislative arena by increased dialogue with their elected representatives. This should be done through the local state medical associations and through personal contact by physicians with their individual congressmen and senators.

CONGRESSMAN FOWLER — Just as a general statement, I very much believe in and advocate that all citizens should become more active in the political process and make their voices heard, and bring

their own thoughts and expertise to bear on the making of public policy. I feel that the best way, or the way that is the most meaningful, is to have such individuals or such concerns voiced by individuals rather than by pressure groups or collective organizations of the people. In other words, in my own sifting of legislative mail and in talking to constituents, I much prefer to see a somewhat longer and obviously individualized inquiry to me as opposed to the signature of a vast number of individuals on a postcard.

CONGRESSMAN McDONALD — First of all, there is a crying need for most physicians — particularly in the metropolitan areas of our country — to educate themselves about the political realities facing our country. They are experts, of course, in the medical field, but many are woefully uninformed about the dangers of big government except perhaps where medicine is concerned. Also, in many areas at state and national medical meetings, liberal politicians who are doing their utmost to destroy free enterprise medicine are often invited to be the guest speakers. This could be compared to sheep inviting a wolf to dinner. Of course, such vagaries and generalities may lead the listeners to think that they have embraced the principles of free enterprise; when given the opportunity, however, those same speakers continue in their efforts to socialize medicine. Only those individuals who actually support free enterprise should be given the prestige of being invited to address medical groups. Those who seek an increase in the role of government in medicine should not be so honored or recognized. Second, physicians must start getting involved in federal legislative matters which do not directly affect them. If physicians become involved only when they or medicine are directly threatened they tend to lose credibility with the public and with Congress. In other words, if physicians object only when *their* ox is gored, but stand idly by while their businessman neighbor or local school system is harassed by the federal government, they will be presented by the news media and editorial writers as representing their own selfish, special interests. They will find themselves gradually isolated and not given the traditional respect accorded the medical profession. Physicians should take strong public stands on principle and articulate those views regardless of which segment of society is victimized by the power of the federal government. As one of our early patriots is reported to have said, "If we don't hang together, we most assuredly will hang separately."

In addition to these somewhat passive actions, informed physicians should begin speaking out on the issues before their civic clubs and other groups. Others should even consider public service. But to reiterate, the first step any physician must take is to inform himself as to what is really going on and then act on that foundation of knowledge.

QUESTIONS ADDRESSED TO MEMBERS OF THE GEORGIA GENERAL ASSEMBLY

1. What are your personal views of such legislation as Certificate of Need (CON) and Cost Containment?

REPRESENTATIVE J. CRAWFORD WARE (Chairman, Insurance Committee) — I am in favor of CON and have been for quite a long time, and, of course, I am in favor of Cost Containment. Anything we can devise which would help toward Cost Containment I favor.

REPRESENTATIVE J. ROY ROWLAND (Member, Health and Ecology Committee) — CON has shown that it does not hold down the cost of medical care. I think that in the session of the legislature when the CON was passed, it passed so our state would not risk losing some $60 million in federal funds that come out of such programs. Programs that attempt to contain the cost of medical care from the government have generally been demonstrated to be unsuccessful. I think that the cost of medical care has gone up for the same reason that many other things have gone up — inflation, highly sophisticated diagnostic treatment modalities that we didn't have before, and the minimum wage. I think the booklet published by the MAG about why the cost of medical care has gone up is excellent.

REPRESENTATIVE SYDNEY MARCUS (Chairman, Health and Ecology Committee) — I think that if it's absolute that the federal government is going to insist on economic sanctions as it relates to programs in Georgia involving mental health and medical education then I think we are going to have to sit down and discuss what we have to do about averting these economic sanctions. However, before we ever get to that it seems to me that we must pursue with the incoming administration and/or transition team what they really propose to do about CON. All that we are talking about is part of the last administration, and it's reasonable to assume this administration may have far different views.

SENATOR AL HOLLOWAY — Well, it's a matter that is facing us, and if there is anything that can be done about it, we have got to do it. I think the control of it has got to have a lot of professional input. I certainly can't see sacrificing the quality and delivery of medical care. Any direction we could take that does not do that I would certainly be in favor of.

REPRESENTATIVE THOMAS B. MURPHY (Speaker of the House) — Well, I have serious

reservations about CON. I think we've gotten too restrictive with it. There are many places I know of that can't get hospitals and nursing homes that really need it because other places around have them, but still they are not in their area. I also have some reservations about it because I think it's infringing on our freedom, for a man [not to be able] to build what he wants to. If he can't make a living, that ought to be his problem. I think we ought to do everything we can though, on Cost Containment, and I just don't know whether CON is a help. . . .

2. Do you feel CON should be expanded to private practitioners' offices either by law or regulation?

SENATOR E. CULVER KIDD, JR. (Chairman, Governmental Operations Committee) — I do not. I think that we have entirely too much legislation and bureaucracies now dealing with individuals, and if we continue to extend [these] requirements, we are going to hurt the area of health care rather than help.

SENATOR ROY BARNES (Chairman, Judiciary Committee) — I am not certain, because I can see certain circumstances where large pieces of equipment which can be bought by a hospital or a doctor ought not to be exempt just because they are going to doctors' offices. At the same time, I don't think that I personally disagree with the procedure that hospitals have to go through, yet if we could abolish this entire procedure, I would be in favor of it. I am just not certain what we'll do. I mean, you know, it's a pain! A hundred thousand dollars is the break. Well, I can't even buy an X-ray machine for $100,000. Nobody can buy an X-ray machine for $100,000. Can't even buy an adding machine, hardly, and so what it has evolved into, in the name of Cost Containment or whatever, is just absolute control.

REPRESENTATIVE J. CRAWFORD WARE (Chairman, Insurance Commitee) — No, I haven't ever thought about that, but I don't see the need to extend it to the offices of doctors. No, I see no need for that.

3. There are a number of para-health groups that wish to expand the scope of their professional responsibility through legislation rather than meeting education requirements. How do you feel about this issue?

REPRESENTATIVE ROWLAND — I don't think it's appropriate for them to seek to do that. I have a concern about what's going to happen to the paramedical groups in expanding the areas that they are involved in with the increasing number of physicians coming into practice over the next decade. I think that paramedical people are going to find themselves closed out in the areas they have expanded into as more physicians come into practice, so I think they are really placing themselves in jeopardy.

SENATOR BARNES — I am not in favor of expanding anything unless it is commensurate with educational requirements.

REPRESENTATIVE WARE — I think they ought to have the training before they expand their activities — ought to demonstrate their ability to take on whatever their responsibilities, by examination.

SENATOR KIDD — Of course, I think in order to extend the scope of any profession, teaching and education must be extended at the same time. I realize that many fields have made requests for upgrading their profession in the years that I have been in the General Assembly. I think this is great as long as they will continue to make additional requirements on their profession; then certainly they should be upgraded if they meet these requirements.

4. As physicians become more interested in the legislative process, how do you recommend they become more involved?

REPRESENTATIVE WARE — The local level is always the involvement that counts with anybody, of course, getting involved in people's campaigns back at home, both physically and financially.

SENATOR KIDD — Of course, physicians should become involved in the legislative process on an individual basis. In my opinion, the Medical Association of Georgia does an outstanding job in their contact with the members of the General Assembly, keeping them informed and working with them in every way possible, but you have very little contact with the doctor himself on a local basis. This is where I feel that the medical profession falls down; doctors should contact the members of the General Assembly, come to know them on a first name basis, and discuss the problems of the medical profession as well as those that confront the members of the General Assembly.

SPEAKER MURPHY — I think that they ought to get to know their representatives before they are elected, while they are running. I don't mean that they ought to help financially, but they ought to get to know them. And they ought to let them know whether they are for them or against them. And if their candidate gets beat, they ought to meet the fellow that did win. I think the worse thing that happens to any professional person is when he doesn't get involved in a campaign. I don't mean go out and beat the bushes and all that sort of stuff, but just let a fellow know he's for him, and talk to him.

Or let him know he's against him, because frankly you have more respect for those folks who will tell you they're against you than those folks who won't tell you anything.

SENATOR HOLLOWAY — You know damn well they're not. They're making too damn much money to take time out. I think they ought to work on their entire PR effort. One of the worst things I could have to do is to have somebody hand me 20 names for the United Fund that were doctors to contact. That would be about the worst thing I could imagine. But why in the hell through their local association they don't kick up a hundred dollars or so apiece and make a big splash and present the check through the local paper. Little things like that — they need to indicate their concern. Of course, they've got their PAC and that definitely has political effects.

REPRESENTATIVE ROWLAND — They can get more involved by actively participating in the political process, by making personal contacts with their representatives and senators, by being informed on issues that they discuss with their representatives and senators. It is very important to know why you are for or against something, and not just say I am for or against that. I think they can also be very effective in making contributions monetarily to candidates of their choice who are running for political office.

REPRESENTATIVE MARCUS — First of all, physicians ought to run for public office. That's number one. But if they choose not to, for whatever reason, then they ought to be involved in a campaign. They ought to encourage and be a part of someone's efforts toward elective office, and at the very least, if they choose not to do that, they ought to know who their legislator is on a first-name basis, and discuss with that legislator matters of mutual concern.

★ ★ ★ ★

You are urged to contact any of the Congressmen and state legislators interviewed in this article, expressing to them your thoughts on their answers. Their addresses are listed below.

Congressman Jack Brinkley
2412 Rayburn House Office Building
Washington, D.C. 20515

Congressman Wyche Fowler
1504 Longworth House Office Building
Washington, D.C. 20515

Congressman Bo Ginn
317 Cannon House Office Building
Washington, D.C. 20515

Congressman Larry McDonald
504 Cannon House Office Building
Washington, D.C. 20515

Senator Roy Barnes, Chairman, Judiciary Committee
422 State Capitol, Atlanta, GA 30334

Senator E.Culver Kidd, Jr., Chairman Governmental Operations Committee
453 State Capitol, Atlanta, GA 30334

Senator Al Holloway, President Pro Tempore
321 State Capitol, Atlanta, GA 30334

Representative Sidney Marcus, Chairman, Health and Ecology Committee
HM-1 State Capitol, Atlanta, GA 30334

Representative Thomas B. Murphy, Speaker of the House
332 State Capitol, Atlanta, GA 30334

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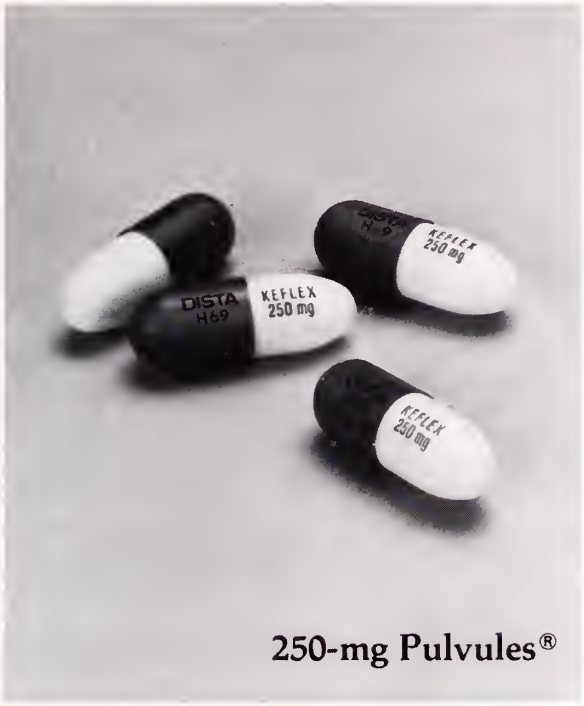
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The author describes thoughts and experiences that happened on an odyssey from the Persian Gulf through Greece to England and back home again.

Wandering Lonely As A Cloud —
An Odyssey in Mid-Career

JOHN D. CANTWELL, M.D., *Atlanta**

Introduction

A YEAR AGO, the United States Sports Academy asked me to lecture on the primary and secondary prevention of coronary heart disease in the Middle East. I agreed to do so, but stipulated that I might renig if the Persian Gulf area was teeming with Russian troops and ships. I planned the itinerary so that I could visit southern Greece on the way over, and return via London and the lovely Lake District of England. In the midst of preparing for the trip, I seriously considered several job opportunities in other states. The decisions were difficult ones. In spare moments during the lengthy trip, I had occasion to reflect upon my final choice as well as to consider a multitude of other happenings, both current and far removed in time. These I recorded in the following diary.

August 23

Enroute to Bahrain, an island country in the Persian Gulf where I will lecture for a week, I spend a few days in Greece. There, in a crowded outdoor cafe near the Parthenon, which is silhouetted by a full moon, there is time to contemplate events of a recent mid-life crisis and attempt to put it into perspective with happenings of times past.

To move or not to move is the big question. Is it better to accept a job in another city, with an appreciable increase in income and great promise for future advancement, or should I stay in Atlanta and continue to build upon a concept I had worked hard to develop de novo. The tide swings in favor of the move. I sit down and write a farewell letter to my patients, explaining my decision. Overcome by emotion, it is difficult to complete the letter, but I finally do. I think of Willie, an elderly black man whom I have come to know and appreciate, and Dorothy, a refined lady in a nursing home for whom I have deep feelings. They can do without me, I feel sure, but can I get along without them?

Several events cause a change of mind. Farewell parties turn into "welcome back" ones. I have an enhanced appreciation of friends, colleagues, home, and city. Legal action is threatened by a doctor in the other city over a contract we signed concerning his home. I am appalled that he would threaten such retaliation on anyone, let alone a fellow physician.

Meanwhile, the local Greek wine goes well with the veal and rice, and I reflect upon my first day in Athens. The cab driver at the airport was young and not long for this world, I fear, in view of his recklessness. He somehow delivers me to the hotel, where I again discover that the travel agent has overestimated my financial resources. I sign up for a half day tour of the city and eagerly view the Academy, where Socrates taught Plato, Plato lectured to Aristotle, and Aristotle instructed Alexander the Great. I climbed a hill to the monument of Philopappas and finally located the cave where Socrates was imprisoned prior to being given the fatal cup of hemlock. A nonconformist and critic of the State, Socrates was guided by his own conscience. At the same time he felt it his duty to submit to the law of Athens, even though his trial was likely to be biased against him. How miniscule my legal problem now seems, compared to his, considering that his life hung in the balance. I am intrigued that Socrates never published a word, a marked contrast to the "publish or perish" mentality of certain academic institutions today.

* Dr. Cantwell is medical director, The Preventive Medicine Institute, Georgia Baptist Hospital, 300 Boulevard, NE, Atlanta, GA 30312.

In the National Archeological Museum, the guide was pointing out the differences in Archaic, Classical, and Hellenistic sculpture. Suddenly I became aware that my pulse was rapid. Shortly thereafter I was diaphoretic and vertiginous. I sat at the base of a statue but was waved away by an angry attendant. Soon I was on the floor, the vertigo worse, feeling that I might pass out. A crowd gathered and some offered water while others rubbed an oil on my forehead. A man bent down, identified himself as a doctor, and asked if I had epilepsy, diabetes, or chest pain. He was Greek, but spoke fluent English. I answered his questions, told him that I, too, was a doctor. He asked where in the United States I was from, and smiled at my answer, for he also lives in Atlanta and was also visiting Greece. I appreciated his tender care and concern.

August 25

The sidewalk cafe in Nauplion overlooks the Agean fortress of Bourzi. I am saturated with ruins — Corinth, Mycenae, and Epidaurus. I have seen the rostrum in ancient Corinth where Paul lectured to the populus. His comments on love (I Corinthians 13:4-8) are among my favorite Biblical passages. I marveled at Schliemann's tenacity, for who really thought that Homer's *Iliad* was other than fictitious? The cult of Asklepius in Epidaurus emphasized the comprehensive approach in healing, interweaving compassion with physical activity, music, and poetry.

Pressed against the bus window are faces of Greek children. I think about a similar face I encountered on my front porch a month ago. The 6-year-old girl rang the doorbell and asked for my daughter, who was away. With front teeth missing and eyes wide open, she directed her next question at me, having seen the "for sale" sign in the front yard:

"Why would you ever want to move?" she asks. "Don't you like it here?"

I study her innocent face, searching for an answer, suddenly aware that down deep I don't want to move, but that would be too complicated:

"A better job," I mumble.

She nods, satisfied momentarily with my answer, but still wondering, as am I.

August 26

For the long drive across the Peloponnesus Mountains, I pull Plutarch's *Lives* from my backpack and read about Pericles, leader of Athens during her Classic Era. I am impressed by his self-composure. One day he was "reviled and ill-spoken of" by an obnoxious fellow in the open market. When Pericles returned home that evening, the man followed him, "pelting him all the way with abuse and foul language." Pericles said nothing in return but, upon entering his house, asked one of his servants to take a light and escort the man safely back to his home.

We reach Olympia where I position my feet in the starting blocks and imagine that I am Koroibos, from nearby Elis, attempting to win the 200 yard dash over 2,700 years ago. My arms pumping furiously at my sides, I surge into the lead in front of the priestess of Demetra, the only woman allowed in attendance. The spectators, seated on the sloping embankments, roar in delight as I maintain the lead and capture the olive wreath.

According to Plutarch . . . Alexander the Great was a fine runner, but never participated in the Olympic Games because he didn't have other kings to run with.[!]

I learn from my book on Greek mythology that the Olympic Games were founded by Heracles, the son of a god (Zeus) and a mortal woman (Alcemene). The latter must have angered the goddess Hera who sent two tremendous snakes to kill the child. Heracles, incredibly strong despite his youth, "caught the snakes by their throats, one in each hand, and strangled them." When he later founded the Olympic contests, Heracles decreed that the winners would receive only olive wreathes, rather than riches, since he (Heracles) had received no pay for his labors (which included killing the monstrous Hydra).

Turning to Plutarch once again, I learn that Alexander the Great was a fine runner, but never participated in the Olympic Games because he didn't have other kings to run with. Alexander "seemed to look upon the professed athletes with indifference, if not dislike."

Not far from the ancient Olympic site, I study the monument containing the heart of Baron de Coubertin, the Frenchman who dedicated his life to reviving the Olympic Games in 1896, about 1500 years after they were stopped. As with Schliemann, I am again impressed with the accomplishments of a single, determined individual.

August 27

Taking a rest break along the Ionian coast, on the way to Delphi, I learn that Demosthenes, like a lot of gifted people, had to work hard at developing his talent. Because he was weak and of "delicate health," his mother forbade him from exerting himself. He sought to emulate the much admired orator, Callistratus, and overcame "inarticulate and stammering pronunciation" by talking with pebbles in his mouth and by reciting speeches while running or climbing up steep places. He also built an underground study and shaved half his hair to force himself to study for two or three months at a time.

As I scrambled up to the sanctuary of Apollo at Delphi, I found it hard just to breathe let alone practice my recitation. The oracles at Delphi were delivered by an ordinary middle-aged peasant woman who was obliged by the honor to abandon her husband and children. I wondered how the people accepted the edict of Theodosis, who prohibited this cult and all other pagan customs (including the Olympic Games) in 394 A.D. The last oracle was a fitting epitaph:

> "Tell ye the King: the carven hall is fallen in decay:
> Apollo has no chapel left, no prophesying bay,
> No talking spring. The stream is dry and had so much to say."

In a tiny shop I study the Oath of Hippocrates, engraved in bronze. Parts of it I don't adhere to (for instance, I don't "swear by Apollo" and do get paid a partial salary for teaching medical housestaff). Other aspects of the oath I still find applicable:

- a high regard for my teachers
- a sense of duty to pass along the art to a new generation
- a hope that my son will follow me in this profession
- a belief in holding what is said in my office in strict confidence
- personal beliefs against euthanasia and abortion
- a practice of not charging other physicians or their immediate families for my services
- engaging in certain teaching duties without accepting or expecting a fee
- a striving for the ideal that in purity and holiness I can live my life and practice my art.

The story of Hippocrates is well known to most physicians, but the myth of Asclepius is much less so. Artemis, upset at the death of Orion, blamed Apollo and got even by shooting the latter's wife, Coronis. Artemis did have the decency to let Coronis give birth to a son, whom Apollo named Asclepius and carried to Mt. Pelion. There, the child was raised by Cherion, King of the Centaurs (who were half men, half horses). Cherion, who had tutored the likes of Heracles and Jason, taught Asclepius about the alphabet, archery, and astronomy. The boy was most interested in medicine, however, and soon became the best doctor in Greece. He not only cured dying people but also, according to legend, restored several dead patients to life, using a magical herb which a snake had shown him. King Hades complained to Zeus that Asclepius was stealing his subjects, and receiving money for his efforts, no less. Zeus fired a thunderbolt at Asclepius, killing him to please Dionysis. Apollo was enraged at this misdeed and reacted by shooting all the cyclops, who had forged the thunderbolts of Zeus. Zeus had the final word, making Apollo serve as a common herdsman for a year.

August 29

The sun sets across the Mediterranean Sea as my plane makes an intermediate stop in Beruit, just hours after an unsuccessful assassination attempt on our ambassador. The machine-gun laden soldier gives me a once over as I rush to make a close connection. There is no time to contact a Lebanese cardiologist with whom I trained at Emory.

I arrived in Bahrain, reeking of cigarette smoke as 95 percent of the passengers, or so it seemed, had been smoking. Representatives of the U.S. Sports Academy hastened my passage through customs, and I was taken to a house near the hospital. Everything in Bahrain is expensive, I was told, except for gasoline, which sold for 40 cents per gallon.

Bahrain is considered by some to be the original Garden of Eden, and has over 100,000 ancient burial mounds to help support this claim. The first country in the Arabian peninsula to produce oil, its daily output has now dwindled to 50 thousand bbl, far below Saudi Arabia's 9,500,000 bbl. Little wonder that the country has turned to other ventures, such as becoming the banking capital of the Middle East.

The next day's dawn beamed into my bedroom at 5 A.M., and I rose to dress. The early sunrise is compensated by an equally early sunset, making the temperature barely tolerable at night, unlike during the day when it can reach 115°F.

Word has spread through the Royal Family that an American cardiologist is in the country (Bahrain has only three). I was asked to consult on a 7-month-old with an apparent ventricular septal defect, a middle-aged woman with probable angina pectoris and a separate pain of chest-wall origin, and a young sheik with multiple coronary risk factors. Subsequent ward rounds revealed an interesting spectrum of diseases, ranging from typhoid fever to mitral valve prolapse. That evening I lectured to the Bahrain Medical Society on cardiac rehabilitation. The questions and discussions afterwards were stimulating, and I found a real need for both primary and secondary coronary prevention in the country.

Almost as the clock struck twelve, ringing in the new month of September, I developed shaking chills, averaging one every half-minute for the next three hours. Fever then set in, followed by cramping abdominal pain, explosive diarrhea, nausea, and vomiting. The mind of a sick physician plays tricks on him in the dead of night. I am concerned about typhoid, amoebic dysentery, and similar maladies that might confine me in Arabia for a prolonged period. I suddenly become even more empathetic with the American hostages in nearby Iran. I know that my lecture series is over. I am more concerned

about the chances of dying from a strange infection, far from loved ones, as my body temperature exceeds 104°F.

Because of weakness, weight loss, and dehydration, my medical hosts insist that I be hospitalized. I resist, but finally agree as my condition is deteriorating, and I am hopeful that hospitalization will speed my recovery. I must be ready for the flight to London 2 nights hence — I must!

The admitting house officer does an inadequate history and physical, but my attending physicians turn out to be fine doctors, combining sound judgment with compassion. When frontal and occipital headaches develop, the internist carefully examines the eyegrounds and elects not to do a spinal tap. An aspirin-like compound is prescribed, which helps.

I am awake during the night, having slept fitfully for the last 24 hours. I want to be discharged the next afternoon in time to make the flight. The ticket agent in the Athens airport had told me I was returning on the Concorde, which will cut the flying time in half.

I set about to build up my strength. As I prescribe for post-coronary patients, I began by sitting up for awhile and then walk back and forth across the room and perform some flexibility exercises. Initially I can make only 15 round-trips in the room but by daybreak it is up to 25. I must be on the Concorde!

The following day the fever has subsided, the diarrhea is better, and the headache is only mild. I request to be released. Several British-trained nurses are strongly opposed, feeling I am too weak to make it to London without problems. The doctors give me more credit, cognizant of my athletic background. We double check the flight schedule and find it is not the Concorde after all but a regular British jet that will stop first in Rome. I will go anyway.

I have been hearing soft background music during my illness. There are popular tunes from the last three decades, classical pieces (I recall Beethoven's "Fur Elise"), Hungarian rhapsodies, and melodies unknown to me. I assume it is stereo music, piped into my room, but now wonder if I am imagining it. I hear it enroute to the airport and ask my Arab driver if he has a stereo in the car. He looks back with a puzzled expression and states that the car doesn't even have a radio. I say no more. Later, on the plane, the stewardess asks if I would like a headset so that I can listen to music. I smile, a private joke, and tell her that I don't need the headset. She thinks I'm trying to be cute and spins away down the aisle:

September 5

Somehow, 9 hours later, the plane arrives in London's Heathrow Airport. I am pale, wobbly, and weak, but drag my suitcase to the subway, find a hotel, and sleep for a day.

Wandering lonely as a cloud in the Lake District of England, my body regains strength and my mind is enriched, filled with thoughts of Wordsworth. I hiked partway up Mt. Helvellyn, which he last climbed at age 70, and spent hours walking around Grasmere Lake and Rydal Water, where he used to ice skate in wintertime. A visit to Dove Cottage showed me his study, although he rarely worked in it, preferring to compose his romantic poetry while on his walks, frightening children and strangers half to death with his shouting.

His friend, De Quincey, once estimated that Wordsworth walked over 180,000 miles during his lifetime. Was this why he remained in such excellent health until his death, at 80, "of nothing serious"? After studying his biography I find there were other factors which contributed:

- He was loved and catered to at home by three devoted women (his sister, wife, and sister-in-law).
- He was spartan in lifestyle, avoiding strong drink and rarely eating meat.
- He was not vindictive, didn't harbor grudges, and accepted vicious criticism of his poetry with the feeling that his work would bring joy and comfort to people in years to come.

The walking did "soothe and sustain his soul and feed the wellspring of his poetry."

September 7

The plane touches down in Atlanta. I return from my odyssey, disguised not as a beggar (as was Odysseus) but as a teenager, clad in jeans, a T-shirt, and running shoes.

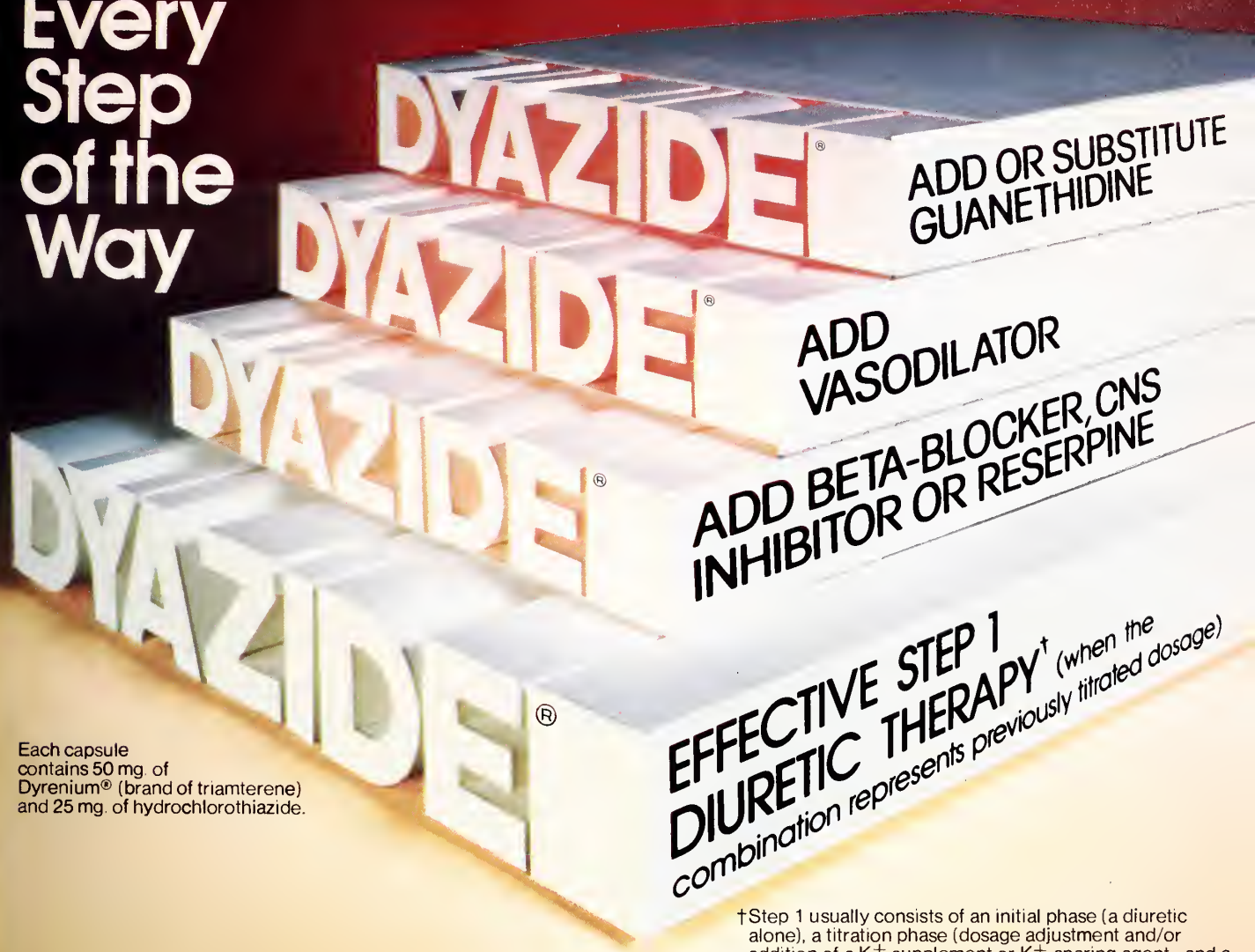
It has been a marvelous trip, despite the illness. My mind has touched on a wide variety of things — lawsuits, Socrates, Plato, St. Paul, Olympic athletes, the oracle at Delphi, Alexander the Great, the impact of Arabian oil on future world developments, sickness, dying, my family, the compassion of physicians, Asclepius and Hippocrates, rehabilitation, and Wordsworth. I embrace my wife and children and turn toward the second half of my life and career, hoping it will bring the same challenges, joys, and satisfactions as the first. The examined life is, indeed, worth living.

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Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

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References: 1. Paulsan GW: *NY State J Med 79*:193-195, Feb 1979 **2.** Hollister LE Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al*. New York, Oxford University Press, 1977 pp.134, 145. **3.** Domino EF. Antipsychotics: phenothiozines, thioxonthenes, butyraphenones, and rauwalfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. **4.** Sovner R, DiMascio A. Extrapyramidal syndromes and other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p.1021 **5.** Donlon PT, Stenson RL: *Dis Nerv Syst 37*: 629-635, Nov 1976.

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LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

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Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy*: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male; breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) – bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

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How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- ☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended
- ☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- ☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- ☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom – insomnia
- ☐ Entire dosage h.s. to take maximum advantage of the sedative effect

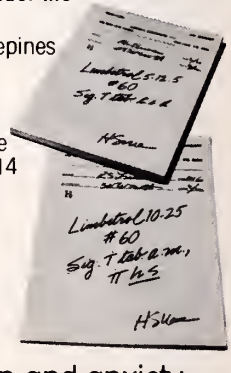
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



In moderate depression and anxiety

Limbitrol® IV

Relief without a phenothiazine

The author discusses the panoply of diverse phenomena encompassed by somatization.

Somatization in the Office Patient — Approaches and Management

EMMETT R. BISHOP, JR., M.D., *Augusta**

WHAT IS SOMATIZATION? In the psychiatric clinic, it is sometimes said, "she had a lot of somatic complaints and would not deal with emotional issues." In the medicine clinic, one hears frequently, "I could not find a physical basis for his complaint, he somatizes a lot." Coming from both perspectives, the term somatization is generally used to mean bodily complaints which arise as the expression of psychic or emotional disturbances. As such, somatization encompasses a panoply of diverse phenomena. Taken in its broadest sense, the word may be applied to (1) the act of complaining about or focusing one's interest on bodily function; (2) the presentation of medically unexplainable bodily symptoms; or (3) physiologic changes in the body attributable to mental disturbance. The latter is the "psychosomatic" sense or usage of the term and will not be addressed in this paper. The first and second senses of the word somatization correspond, in part, to what has been recently called "abnormal illness behavior."[1, 2] Implicit in these uses of the word somatization is the notion of discrepancy between the doctor and patient regarding the state of the latter's body.

According to Coe,[3] "disease" must be distinguished, in a sociologic sense, from "illness." Disease is a biologic concept which is substantiated by medical examination, whereas illness is a self-perception of altered bodily states. The "private" experience of illness may be defined as "the ways in which individuals react to aspects of their own functioning which they evaluate in terms of health and illness."[2] When an individual's subjective experience of illness deviates beyond that which the physician (or social reference group) can validate in terms of objective disease, a disease-illness discrepancy is present.

All disease-illness discrepancies may not be due, however, to alteration of subjective experience in the patient, but to socio-cultural differences between doctor and patient which may reflect, among other things, different models of disease.[4] While this latter source of disease-illness discrepancy is important in everyday patient care, it is not somatization as the term is generally used.

Disease-illness discrepancies which do represent altered subjective experience in the patient should never be considered the endpoint of a diagnostic process, but rather the beginning of a more thorough evaluation. Such an evaluation entails the differentiation of specific treatment responsive syndromes among many psychiatric disorders which manifest bodily complaints. It is the purpose of this paper to survey psychiatric disorders which are commonly obscured by the simplistic notion of somatization, to examine the differential diagnoses of these disorders, and to discuss management and specific treatments of psychiatric entities in which bodily complaints may predominate.

Differential Diagnoses of Somatization

In the *Diagnostic and Statistical Manual III* of the American Psychiatric Association,[5] a variety of disorders which may produce somatic concerns are found. There are the consciously produced illnesses

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including malingering and chronic factitious disorder, also known as Munchausen's Syndrome. A new grouping called the somatoform disorders include: (1) somatization disorder (hysteria), (2) conversion disorder, (3) psychogenic pain disorder, and (4) hypochondriasis. Of a different sort are the various psychiatric disorders which may exhibit somatization within a broader context such as: (1) the major psychoses, (2) the anxiety disorders, and (3) the affective disorders. Since the focus of this paper is on those problems encountered most frequently in the office practice of general medicine, I will limit my discussion, for the most part, to the somatoform, anxiety, and affective disorders.

Somatization disorder — Somatization disorder is defined as a polysymptomatic syndrome that usually begins before the age of thirty (30). The patient (usually female) claims that she has been sickly for the majority of her life and reports a host of medically unexplainable symptoms involving pseudoneurologic, musculoskeletal, genital-urinary, cardio-pulmonary and gastrointestinal disturbances, and sexual dysfunction. Eighty percent (80%) of the patients with this syndrome have depressive symptoms.[6] Also, anxiety symptoms are extremely common. Practitioners often confuse this syndrome with hypochondriasis, but the latter is now considered to be an ideational disturbance without conversion symptoms.

Somatization is analagous to fever – there are many things that can cause it, and one should look for a specific etiology.

Conversion symptoms are disturbances of function which occur often in somatization disorder, but are also observed in conversion disorder, other psychiatric disorders, and in organic brain disease such as multiple sclerosis. It is important to realize that recognition of a conversion symptom, therefore, does not entail a diagnosis. The same holds for psychogenic pains which are seen as a part of somatization disorder and other psychiatric syndromes. Although other medical disorders such as systemic lupus erythematosis or multiple sclerosis must be ruled out, the operational diagnosis of somatization disorder carries a 90% confidence that the multiple symptoms encountered will not be explained by another medical entity.[7]

Conversion disorder and psychogenic pain disorder — Conversion disorder is defined as a loss or alteration of bodily functioning for which no physiologic basis can be found. The symptom may occur after some emotionally disturbing event, may enable the individual to obtain some need or benefit from his environment which might not otherwise be forthcoming, or may allow him to avoid some noxious stimuli. Psychogenic pain disorder is defined in a similar manner except that the predominant disturbance is pain. The pain may occur in connection with a physical disorder, but is judged to be out of proportion to what would normally be expected from such. When arriving at the diagnosis of conversion disorder or psychogenic pain disorder, one must be careful that other criteria for somatization disorder, affective disorder, anxiety disorders, and psychotic disorders are not present. Patients with conversion disorder and psychogenic pain disorder are very similar in their demographic and clinical profiles.[8] They both occur predominantly in women, although they occur more commonly in men then does somatization disorder.

Hypochondriasis — When somatization takes the form of an excessive fear or belief that one is suffering from a disease and there is concomitant preoccupation with body functioning, we call the problem hypochondriasis. The individual with hypochondriasis pursues the diagnosis and treatment of his condition with vigorous determination. In contrast to the patient with somatization disorder, he is less concerned with loss of functioning than with arriving at a diagnosis and specific treatment of his condition. The hypochondriac will often demonstrate much knowledge of medicine. He is not complacent about assuming the sick role with its incapacitation as the patient with somatization disorder does. Pains and non-specific symptoms are more common, while conversion symptoms are rare. There generally is not a life-long history of sickliness with hypochondriasis. In fact, they often have a past history of physical fitness or athleticism.[9] Several authorities[10, 11, 12] have argued over whether hypochondriasis is a clinical entity or whether it is a manifestation of other psychiatric disorders. There are data to support both positions, but my own experience is compatible with the latter. Generally, when a hypochondriacal picture is encountered with an anxiety disorder, it takes a disease-phobia picture.[13] When it occurs with depression or major psychoses, it tends to have a disease-obsession or disease-conviction picture.

Anxiety disorders — Among the several kinds of clinical problems classified here are generalized anxiety state, specific phobias, obsessions, panic attacks, and post-traumatic stress syndromes — all of which may be accompanied by somatic complaints and illness concerns. The somatic complaints are generally those symptoms of autonomic nervous system arousal and reflect sympathetic activity, i.e.,

palpitations, perspiration, shortness of breath, urinary frequency, etc. These bodily symptoms may, in turn, be associated with ideational disturbances such as disease phobias or disease obsessions. The common cancerophobias and syphilophobias are examples. Often, counterphobic rituals involving behaviors such as frequent body washing, avoidance of "contaminated" objects, and checking or monitoring of body functions are observed. Not infrequently, one encounters a triad of phobic anxiety-depersonalization-hypochondriasis as described by Sheehan.[14]

Affective disorders — Bodily symptoms and concerns are, of course, well known with depression. Depending upon the severity of the depression, one encounters symptoms ranging from vague nonspecific body disturbances to outright somatic or disease delusions. In office patients, often the bodily concerns will overshadow the dysphoric affect.[15] Among the more typical bodily symptoms of depression are dizziness, paresthesia, fatigue, and oppressive feelings in the chest. Vague, ill-defined abdominal complaints, including nausea, are extremely common. Disease or somatic delusions may be very bizzare. For example, the patient may complain that his bowels have closed up or that he is missing vital organs. Similar delusions are also encountered in schizophrenia and in organic brain syndromes.

Management of Somatization

It should be clear from the foregoing discussion that somatization is not a unitary concept. Somatization is analagous to fever — there are many things that can cause it, and one should look for a specific etiology. Treatment of somatization, therefore, is based on the treatment of the underlying diagnosis.

This group of heterogeneous problems can be divided into those which require predominantly psychopharmacologic (biologic) management and those which require mainly psychosocial approaches. This is done for clarity of purpose rather than to imply a dichotomy of treatment approaches. All patients should be given a comprehensive treatment plan involving specific strategies in the biologic, psychologic, and social areas. One or another of these treatments may predominate in any given treatment plan. For example, with factitious illnesses, social management may take precedence. With the somatoform disorders, psychologic management may become more important than either the social and biologic interventions. Finally, with the anxiety and affective disorders, biologic approaches may be the major thrust of treatment with ancillary psychosocial management. We will now consider biologic and psychosocial intervention in more detail.

Biologic interventions — Biologic interventions are especially important if somatization is the expression of an anxiety, affective, or psychotic disorder. For the psychotic disorder, obviously antipsychotic or neuroleptic medications are indicated. Pharmacologic treatment strategies in anxiety disorders are more complicated and depend upon the diagnosis. For generalized anxiety disorder, anxiolytic drugs such as the benzodiazepine derivatives are the agents of choice. For the agoraphobia or panic disorder complex, low-dose tricyclic antidepressants or monoamine oxidase inhibitors are indicated. Sometimes, beta-adrenergic blocking drugs are effective in these categories. For obsessive-compulsive disorders, there are no currently available drugs which are effective. A drug being marketed in Europe, clorimipramine, has been shown to be of considerable benefit in patients with obsessive-compulsive disorders[16] and may soon become available in the United States.

Biologic interventions are especially important if somatization is the expression of an anxiety, affective, or psychotic disorder.

If the somatizing patient is suffering from an affective disorder, one's major task is to decide whether it is drug responsive or not. The vegetative signs of endogeneous depression are sought. These signs are the disturbances of sleep, typically insomnia with early morning awakening; loss of appetite; loss of sexual interest; loss of pleasure response, and diurnal variation in mood. These symptoms, together with family and personal history of depressive episodes, predict response to tricyclic antidepressants. The bodily symptoms and concerns will generally remit along with the vegetative symptoms of depression as the antidepressant medication begins to take effect.[17]

With somatization disorder, conversion disorder, and psychogenic pain disorder, biologic treatments at the present time are non-specific. As mentioned before, 80% of patients with somatization disorder have a significant dysphoria, and the physician may mistake the syndrome for depression. The dysphoria accompanying somatization disorder rarely shows vegetative symptoms of depression. Use of tricyclic antidepressants in such patients is extremely confusing and of questionable value. In general, a third of somatization disorder patients will not respond at all to a tricyclic antidepressant, a third will have a rapid placebo response, and a third will complain bitterly of tricyclic side effects necessitating immediate termination of treatment. Moreover, even if the patient with somatization disorder takes his medication, there is the risk of lethal overdose with tricyclic

antidepressants. Suicide attempts are very frequent in patients with somatization disorder and the use of these cardiotoxic drugs creates a substantial hazard. If one does feel justified in using this medication, however, safer drugs such as doxepin or benzodiazepine derivatives are recommended.

To understand the psychosocial management of patients with somatoform disorder, one must be familiar with the sociologic concept of the sick role.

Psychosocial interventions — Even when biologic factors are prominent as in the affective and anxiety disorder, psychosocial interventions are extremely important in creating rehabilitative and corrective experiences for the patient with somatization. Psychosocial management is the *major* intervention in the somatoform disorders. To understand the psychosocial management of patients with somatoform disorder, one must be familiar with the sociologic concept of the sick role. In the sick role, an individual is temporarily exempted from his usual social role responsibilities, is expected to seek medical treatment and comply with it, and is not held responsible for his illness.[18] The concept of the sick role holds best for acute traumatic or infectious diseases. In these cases, the individual is expected to recover fully from his sick role incapacitation and return to his original level of functioning. Within the framework of this concept of the sick role, the physician seeks to cure the patient's infirmity. For chronic debilitating diseases, the sick role is modified to the handicapped or incapacitated role[19] where the patient is expected to fulfill, as much as possible, his usual social responsibilities rather than be exempted from them. In ordinary doctor-patient relationships, the nature of the patient's disease usually indicates the role to be accepted by him. This is not the case in somatization, conversion, and psychogenic pain disorders in which the symptomatology signals the assumption of the temporary sick role when the patient, in actuality, seems to be seeking a permanent status in this role. The results of this type of doctor-patient relationship is failure of treatment. In dealing with the somatoform disorders other than hypochrondriasis, the physician's task is probably best conceptualized within the framework of the incapacitated or handicapped role. The physician must, however, initiate the alignment of his concept of social functioning with that of the patient. The patient must understand that the sick role is not an appropriate status and that there are no immediate cures for his illness. Once this is accomplished, the patient is engaged in a rehabilitative treatment plan. The treatment plan is initiated by helping the patient (1) relinquish the unrealistic goal of total relief of symptoms; (2) function at maximal capability; (3) view new symptoms as the manifestation of a chronic problem; and (4) expect regular evaluations of social functioning as part of his management. I have discussed this in greater detail elsewhere.[20]

With all forms of somatization, one must deal with immobilization and constriction of the patient's life circle. The patient with somatoform disorders, depression, or any of the anxiety disorders may become housebound and withdrawn, focusing on his plight. The inward-oriented patient must be encouraged to face outward and relate to other individuals. Immobilization can be somewhat lessened by encouraging the individual to exercise and get out of the house. He must be given tasks, however, that are well within his capability lest he meet with failure which might discourage further efforts.

Another therapeutic tact with the somatizing patient is helping him expand his social network. The immobilized individual with a shrinking social network often exhibits illness behavior characterized by *functional incapacitation* which, in turn, elicits those supporting and helping behaviors from the medical institution and others in the patient's tenuous social system. Physicians must not overlook this aspect of human interrelational existence. Illness behavior may be viewed as a signal for mobilization of one's social network, usually at a time when body integrity is threatened. Sometimes, the opposite sequence occurs in which the individual senses the dissolution of his support system, and abnormal illness behavior or somatization ensues. It is important for the medical practitioner to be aware of the role he plays as a part of the patient's social network and to use this awareness to advantage.

It is important to recognize abnormal illness behavior or somatization early in its evolution — while it is a signal — before it becomes a substitutive way of coping for the patient. Later, illness behavior may substitute for verbal, discursive means of interacting with others in one's social milieu. Because of its effectiveness and, at times, tremendous survival value, such behavior may be next to impossible to displace even when the individual acknowledges other equally effective means of coping. Some individuals lack a repertoire of effective coping behaviors and, therefore, need more extensive therapy than the physician can provide. In these cases, the expertise of professionals skilled in psychotherapies should be sought.

Conclusion

This presentation has dealt with the multi-faceted problem of somatization or abnormal illness behavior and the biopsychosocial approach to understanding and managing these problems. I have tried

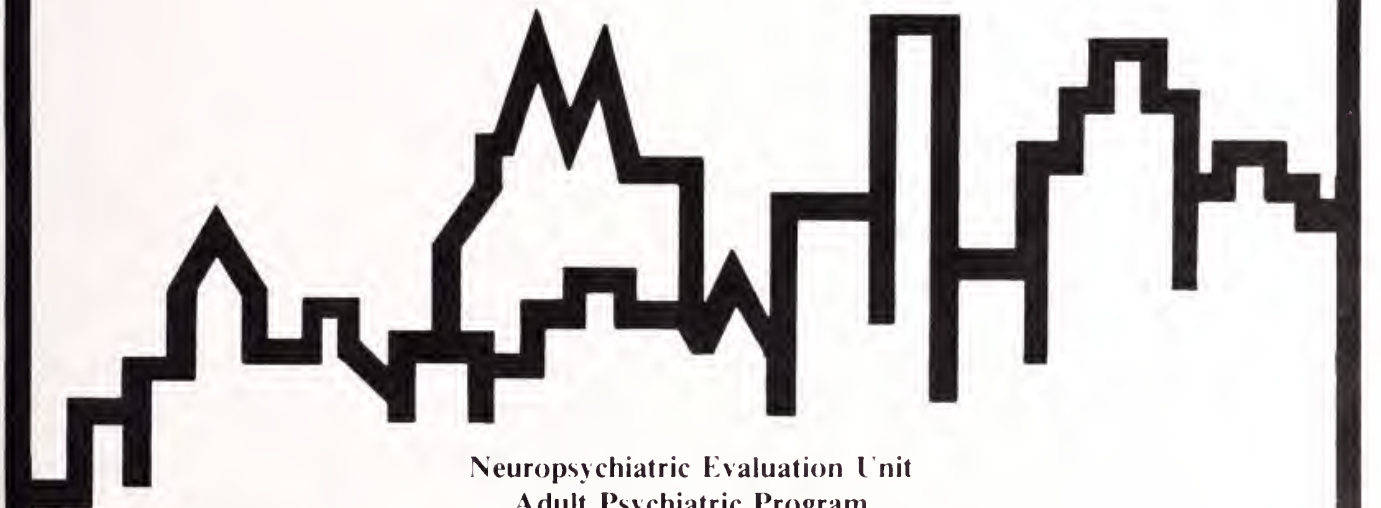
to convey that the problem of somatization is not a unitary one and that we must strive to diagnose accurately the patient's underlying disorder in order to effect a rational treatment. The use of operational, diagnostic criteria should make the task of arriving at a precise diagnosis less problematic for the general medicine practitioner. Once the underlying disorder is identified, then specific biologic, psychologic, and social interventions may be undertaken.

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The use of tricyclic antidepressant blood levels can be an extremely useful tool for treatment of depression.

Clinical Use of Tricyclic Antidepressant Blood Levels

RONALD C. BLOODWORTH, M.D., *Atlanta**

Since 1958, when Kuhn recognized the antidepressant effect of imipramine, there has been progressive development in the chemotherapy of depression, with the tricyclic antidepressants becoming a mainstay. Recently, with the development of tricyclic antidepressant (TCA) assays, the use of these drugs has become safer and more scientific, and their therapeutic effectiveness has become better established. Proper utilization of tricyclic antidepressant blood levels can result in decreased morbidity from depressive illness and can enhance the beneficial effect of chemotherapy.

I shall not attempt to exhaustively investigate all aspects of the TCAs but rather will furnish some guidelines for the use of TCA blood levels. The success rate in treating depressive illness with these drugs has often been quoted as approximately 60%. Utilizing TCA blood levels, this effectiveness can be raised to around 80%. TCA blood levels are a valid, reproducible, and rapid indication of subtherapeutic, therapeutic, or toxic concentrations.

Measuring blood levels is useful only where the drug binds reversibly to the receptor site and thus follows the law of mass action. The TCAs are such compounds, and their metabolism is subject to genetic and environmental influences. The TCAs are fat-soluble; the lipid space of an individual should be considered when prescribing. Women generally tend to show a poorer response than men on comparable doses and may require larger amounts of medication for a therapeutic response.

There is approximately a 40% plasma level variation in individuals given the same dose of TCA as a result of individual differences in metabolism, and this may result in reaching two to three times the expected level in some, even to the point of being toxic or, conversely, failing to reach a therapeutic level with the average recommended dose. Five to 10 days are required to reach a steady state (Table 1).

Before a patient is considered a treatment failure, he or she should be on a trial of TCA at a therapeutic level for at least 3 weeks, and if the tricyclic blood levels do not reach therapeutic range, a poor response can be expected. With nortriptyline, there is a narrow therapeutic range, with values above and below contributing to decreased therapeutic response. In order to accurately determine therapeutic levels of the tertiary amines, the parent (tertiary) and

TABLE 1 — TRICYCLIC ANTIDEPRESSANTS
APPROXIMATE HALF-LIFE AND
THERAPEUTIC PLASMA LEVELS

Drug	Plasma ½ Life (hrs.)	Optimum Level (ng/ml)
1. Secondary Amines		
A. Desipramine	12-77	100-300
B. Nortriptyline	12-93	50-150
C. Protriptyline	54-198	100-200
2. Tertiary Amines (plus 2° Amine give plasma level)		
A. Imipramine	9-24	150-300
B. Amitriptyline	17-75	150-300
C. Doxepin	17-51	100-200

TABLE 2 — ACTIVE TRICYCLIC ANTIDEPRESSANTS

A. Imipramine metabolized to Desipramine — both active compounds
B. Amitriptyline metabolized to Nortriptyline — both active compounds

* Dr. Bloodworth is Program Director, Neuropsychiatric Evaluation Unit, Psychiatric Institute of Atlanta. Address reprint requests to him at 881 Juniper St., NE, Atlanta, GA 30308.

active metabolite (secondary), must be measured, and the sum considered as a total (Table 2).

Most non-responders to tricyclics result from one of the following: (a) Misdiagnosis and inappropriate use of tricyclics; (b) the wrong tricyclic for the type depression; (c) insufficient or excessive concentration of tricyclic; or (d) lack of compliance.

A better response can be anticipated when there is (a) careful diagnosis; (b) thoughtful selection of the proper tricyclic; (c) individualizing dosage; (d) consideration of individual variation, and (e) attention to concomitant medical conditions.

Older patients require only a half to a third of the recommended dose because of decreased metabolism. They are more likely to become toxic when receiving the usual recommended dosage, and more likely to experience serious anticholinergic side effects. Central nervous system and cardiovascular toxic effects are the most frequently seen and correlate with tricyclic plasma levels.

Plasma levels are susceptible to variation due to other substances. Oral contraceptives, barbiturates, hypnotics, smoking, alcohol, and anticonvulsants decrease tricyclic levels. Conversely, Ritalin, Antabuse, neuroleptics, morphine, and Demerol increase tricyclic levels.

In order to obtain a true plasma level picture, blood should be drawn 12 hours after the last dose. Indications for monitoring tricyclics are:

1. Shorten the length of trial on the tricyclic medication by reliably identifying the therapeutic range.
2. Identify hyper- and hypo-metabolizers.
3. Protect the patient from adverse side effects when taking more than one CNS active drug, such as neuroleptics, anticholinergics, anticonvulsants, etc.
4. Protect patients with impaired metabolism. For example, those in severe depressions experiencing anorexia, weight loss, and dehydration; adolescents and children; the elderly; those with inflammatory and metabolic diseases; and those with renal, cardiovascular, or hepatic diseases.
5. Evaluate compliance and ensure that the tricyclic is within the therapeutic range.
6. Monitor patients who have had a personal or family history of adverse reactions to TCAs.
7. Patients treated with nortriptyline should be monitored to ensure they are within the "therapeutic window," since this medication has a very narrow therapeutic range.

TABLE 3 — BRAND NAMES OF TRICYCLIC ANTIDEPRESSANTS

- **1. Secondary Amines**
 - **A. Nortriptyline**
 - **1. Aventyl**
 - **2. Pamelor**
 - **B. Desipramine**
 - **1. Norpramin**
 - **2. Pertofrane**
 - **C. Protriptyline**
 - **1. Vivactil**
- **2. Tertiary Amines**
 - **A. Doxepin**
 - **1. Sinequan**
 - **2. Adapin**
 - **B. Amitriptyline**
 - **1. Elavil**
 - **2. Endep**
 - **3. Amiteil**
 - **4. Amitriptyline HCl**
 - **C. Imipramine**
 - **1. Tofranil**
 - **2. Sk-pramine**
 - **3. Imavate**
 - **4. Janimine**
 - **5. Presamine**
 - **6. Imipramine HCl**
 - **7. Antipress**

To achieve maximum benefits from any tricyclic, the physician should become thoroughly acquainted with the mode of action of the drug and its side effects. One particular drug should be used to its maximum potential before adding medication which could cloud or complicate the clinical picture. Brand names of TCAs are categorized in Table 3.

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MAG Position Statement — Marijuana

After extensive debate in late 1979, the MAG Board of Directors endorsed proposed state legislation which would permit the scientific evaluation of marijuana in the treatment of two specific prevalent conditions. The Board wisely concluded that a scientific organization should support appropriate evaluations designed to add, if possible, further tools for our colleagues in the treatment of their patients. In the event that such evaluations demonstrate a failure of marijuana to be of any substantive therapeutic value, a substantial public service would be rendered by dispelling the myth of a marvelous response being suppressed by an alleged conspiracy of antiquated, prejudiced reactionaries. In my judgment, the Board of Directors acted in the best interests of the public and in the finest of medical traditions.

Alas! Once again official representatives of the medical society failed to appreciate the power of public information sources to distort the most honorable intentions. Those individuals who advocate the *recreational* use of marijuana utilized public news organs to announce that Georgia physicians endorsed the use of marijuana. The failure to include the restrictive nature of the "endorsement" constituted a self-serving falsehood. News media were at best duped into promulgating this erroneous impression and at worse succumbed to the need for a sensational caption.

MAG members throughout the state responded promptly with critical and justifiable anger to the alleged actions of the Board of Directors. Subsequently, the House of Delegates, acting upon recommendations of the Cancer Committee, formally confirmed the position of MAG during the 1980 Annual Session.

The Medical Association of Georgia reaffirmed support for the current legislation in Georgia which permits a *limited, strictly controlled medical research program* to *test* the effectiveness of marijuana in the treatment of patients suffering from *glaucoma* or *carcinoma*. Furthermore, the MAG condemns the use of marijuana or any derivative of this substance in any fashion for any purpose other than the limited research authorized by the action of the 1980 Georgia General Assembly.

Each member of the MAG should be aware of this specific position. This position should be communicated to responsible segments of the news media in order that the public in general and young people in particular are not misled as to the opinion of the medical profession regarding the use of marijuana.

J. A. Raines, M.D.
Chairman
MAG Board of Directors

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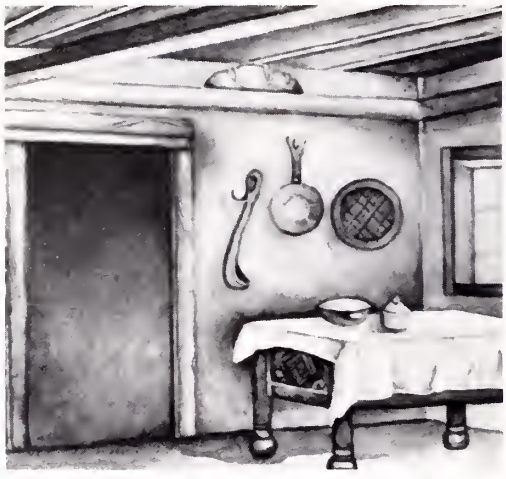
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A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



Today's Tradition: Tegopen®
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for the treatment* of known or suspected staphylococcal infections such as:

- Acute sinusitis
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- Abscesses
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In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]



Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

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1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34 Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy

‡Not all isolates may have been tested using both discs.

Tegopen®
(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information consult Official Package Circular
(12) 9/11/75

INDICATIONS

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS.

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING.

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS.

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS.

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE.

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles

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Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

In G.I. therapy



Adjunctive Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended dosage, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants.

See WARNINGS.

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heart page
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Evaluation of Cardiac Murmurs

MILTIADIS A. STEFADOUROS, M.D., *Augusta**

DETERMINATION of the origin and diagnostic significance of a cardiac murmur is a common task facing cardiologists and, occasionally, internists. The majority of congenital malformations or acquired valvular lesions produce murmurs which, if properly interpreted, lead to the correct diagnosis or, at least, restrict considerably the spectrum of possible diagnoses. Certain cardiac lesions produce more than one type of murmur, and any type of murmur may be produced by different cardiac lesions. Even worse, occasionally two or more lesions co-exist in the same heart, each contributing its own murmur(s), often to the physician's utter confusion and discouragement. The only way out of this labyrinth is to classify the murmurs according to a logical system based on certain of their attributes that can be easily recognized by auscultation.

There are several such attributes. Some are of limited value and only play an ancillary role in the diagnostic process. Included in this category are the loudness, pitch, harmonic composition, shape, and location and radiation on the chest. Others are of crucial importance, since their perception is less amenable to subjective bias, they are less ambiguous, and, most importantly, they have a strong physiologic basis which enhances their discriminatory power and, hence, diagnostic value. These important attributes are the timing or location of the murmur within the cardiac cycle, and its response to certain respiratory, postural, physiologic, and pharmacologic interventions.

The following discussion is based on the assumption that the physician is capable of identifying the existence of a murmur, determining its exact location within the cardiac cycle, and recognizing significant changes in its loudness in response to provocative maneuvers. Armed with this skill, the physician should attempt to provide the correct answer to the following three questions:

1. **Is the murmur confined to systole (systolic), diastole (diastolic), or does it occupy part or all of both phases (continuous)?**

 If the murmur is *continuous,* the examiner should first exclude the possibility of its being either a mammary souffle audible over both engorged breasts of a pregnant woman or a venous hum commonly found in the supra- or infraclavicular area in children or anemic subjects in the sitting or standing position. The latter is easily abolished by having the patient assume a supine position or by digital compression of the jugular veins above the clavicle. After this, the following conditions should be considered in the light of additional clinical or

* Dr. Stefadouros is Associate Professor of Medicine and Director of the Cardiac Noninvasive Laboratory, Section of Cardiology, Department of Medicine, Augusta 30912. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

laboratory information: A. Patent ductus arteriosus (PDA) (location of murmur in left subclavicular area; chest x-ray); B. Aortic-pulmonary window (echogram); C. Coarctation of the aorta (hypertension; delayed, weak, or absent femoral pulses; rib notching on chest film); D. Ruptured Valsalva sinus (echogram); E. Coronary A-V fistula (history, ECG); F. Peripheral pulmonary artery stenosis (unusual location of murmur); and G. Blalock's or Pott's anastomosis (history).

If the murmur is either systolic or diastolic, the examiner should proceed to the next question.

2. Is the murmur produced by lesions of the right or the left side of the heart?

The answer to this question may be provided by noting whether the murmur definitely becomes louder on inspiration, in which case it is right-sided. If the murmur exhibits no change or becomes softer on inspiration, no conclusion can be drawn and the Valsalva maneuver (sustained forced expiration against a closed glottis) should be used.[1] With one possible exception, all murmurs become softer or even disappear during the straining period of this test. When the effort is released, the murmurs return to their initial loudness (or even exceed it) within 1-2 beats if they are *right-sided,* or after a delay of 4-11 beats if they are *left-sided.* This time difference represents the time taken by the blood to reach the left heart via the pulmonary circulation, and permits discrimination between right- and left-sided murmurs. The notable exception is the murmur of idiopathic hypertrophic subaortic stenosis (IHSS) which, as a rule, behaves in exactly the opposite way, namely, it becomes louder rather than softer during the straining period. Nevertheless, the delayed resumption of its initial softness upon release of the effort betrays its left-sided origin.

3. What is the location or timing of a systolic or a diastolic murmur within the respective periods of heart cycle?

A. *Systolic murmurs*[2]: Murmurs which completely fill the duration of systole from S1 to S2 are called *pansystolic or holosystolic murmurs.* If right-sided, they are due to tricuspid regurgitation (TR); if left-sided, they signify either mitral regurgitation (MR) or ventricular septal defect (VSD), the distinction between the two being based on location, frequency, and radiation of the murmur. Systolic murmurs starting early in systole and terminating before the aortic closure sound (A_2) or, if right-sided, the pulmonary closure sound (P_2), and having a decrescendo or crescendo-decrescendo configuration, are called *ejection systolic murmurs.* If left-sided, they may be due to obstruction at the level of the valve (aortic stenosis) or the left ventricular outflow tract (IHSS), to high flow across the valve (high output states, aortic regurgitation [AR]), to high pressure in, or dilatation of the ascending aorta (systemic hypertension, aortic aneurysm), and to advanced age. The corresponding conditions generating a right-sided ejection murmur are: pulmonary valve stenosis, Fallot's tetralogy, high flow across the pulmonary valve (high cardiac output, atrial septal defect [ASD], VSD, pulmonary regurgitation [PR]), pulmonary hypertension, idiopathic dilatation of the pulmonary artery, young age (children, adolescents) and, in addition, the straight-back syndrome. Murmurs starting towards mid-systole and extending to S2, thus occupying the last 1/3 or 1/2 of systole, are called *late systolic murmurs* and are commonly due to prolapsed mitral valve or to papillary muscle dysfunction. Data from the history, ECG, and echogram permit distinction between the two conditions.

B. *Diastolic murmurs:* Those which begin with A_2 (or P_2 if right-sided), thus being present during the isovolumic relaxation phase of the respective ventricle, are called *early diastolic murmurs,* regardless of their duration. They signify either aortic valve regurgitation (AR) if left-sided or PR if right-sided. Physical examination, ECG, chest x-ray, and echocardiography provide the means for

establishing the correct diagnosis. Murmurs starting well after (>0.08 sec)A_2 (or P_2 if right-sided), are called *mid-diastolic murmurs* and are produced by turbulent, antegrade flow of normal or increased amounts of blood across obstructed or even normal atrioventricular valves. If left-sided, they may be due to mitral stenosis (MS), left atrial tumor or thrombus obstructing the mitral valve, or excessive diastolic mitral valve flow due to high output states, marked MR, and large left-to-right shunt due to VSD or PDA. The corresponding lesions responsible for right-sided mid-diastolic murmurs are tricuspid stenosis (TS), right atrial tumor or thrombus obstructing the tricuspid valve, high output states, marked TR, and large left to right shunt due to ASD or anomalous pulmonary venous drainage into the right atrium. Finally, murmurs appearing in late diastole between the P wave of ECG and the ensuing S1 are called *late diastolic murmurs*, and as a rule are due to MS if left-sided, or TS if right-sided, with echocardiography providing the definitive diagnosis.

This algorithm is not complete, in that certain uncommon murmurs or rare etiologies of common murmurs are not included, most of them falling into the domain of pediatric cardiology. After the scope of possible diagnoses has been markedly restricted by this process of elimination, ancillary data from history, physical examination, bedside vasoactive and other interventions, and noninvasive techniques may be used to establish the definitive diagnosis, thus sparing the patient an unnecessary or untimely cardiac catheterization.

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Chemotherapy of Head and Neck Cancer

TROY H. GUTHRIE, JR., M.D., *Augusta**

SQUAMOUS CELL CARCINOMA of the head and neck presents many therapeutic dilemmas to the practicing physician. Accounting for approximately 25,000 new cases and 8,000 deaths per year,[1] the surgical and radiation therapy of advanced cases result in many functional, psychosocial, and cosmetic problems for the patients. These disabilities resulting from therapeutic maneuvers would be much more acceptable if cure rates were high, but as data show, long-term survival for advanced head and neck cancer is very low.[2] Large bulky tumors present a triad of therapeutic problems. First, they may have regional disease or invade vital structures and be primarily unresectable. Second, standard surgical and/or radiation approaches have a high incidence of local recurrence. Finally, these advanced tumors are now recognized as often developing distant metastases even when local control is obtained.

Chemotherapy is a relatively new therapeutic approach in head and neck cancer. Like other tumor sites, the chemotherapy of head and neck cancer has gone through the logical sequence of (1) multiple drugs being used as single agents, (2) combinations of the more effective drugs being tested, and now (3) its role in combined modalitic treatment approaches with surgery and radiation therapy being investigated.

Many single agents have been tried in head and neck cancer (Table 1). Of all these agents, most investigators feel Methotrexate, Cis-platinum, Bleomycin, and Velban are the most active drugs in head and neck cancer. Each of these drugs has certain common characteristics: (1) response rates range from 20-50% as single agents; (2) response rates are generally higher in previously untreated patients, i.e., those having no previous surgery, radiation, or other chemotherapy; (3) responses

TABLE 1 — Single Agent Activity in Head and Neck Cancer

Drug	Response Rate (%)
Methotrexate[3]	**57**
Cis-platinum[4]	**35**
Bleomycin[3]	**15**
Vinblastine[3]	**29**
5-FU[3]	**15**
Hydroxyurea[3]	**39**
Cyclophosphamide[3]	**36**
Adriamycin[3]	**23**

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are usually incomplete with measurable tumor remaining; and finally, (4) responses to single-agent chemotherapy are usually quite brief, with median duration of responses usually only 3-4 months.

Two drugs, Methotrexate and Cisdiamminodichloroplatinum (II) (Cis-platinum), deserve special attention. Methotrexate has the largest cumulative experience of all drugs used. It has been given in a wide variety of manners ranging from low dose oral regimens to very high doses intravenously with leucovorin rescue protocols. Of all these regimens, moderate dose Methotrexate given intravenously weekly in the range of 40-50 mgm/m^2 has optimum response rates, with toxicity and expense being considerably less than the higher dose regimens.

Cis-platinum is a relatively new antitumor agent with excellent activity in head and neck cancer. Dose-limiting toxicity is nephrotoxicity with relatively little marrow suppression. Nephrotoxicity can be limited with pre-therapy hydration and volume expanders such as Mannitol, thus enabling doses of 80-120 mgm/m^2 to be given every 3-4 weeks.

Combination Chemotherapy

Encouraged by the demonstration of active single agents, oncologists have rushed to report results of various drug combinations (Table 2). For the most part, these combinations have certain similar characteristics. First, response rates and duration of response are better than single-agent chemotherapy. Second, response rates in previously untreated patients are higher than in treated patients. Thirdly, the percentage of complete responses is higher. Fourthly, however, the duration of response, while slightly longer than single-agent chemotherapy, is still quite short, being usually around 5-6 months. As yet no one combination of drugs has definitely been accepted as better than single-agent chemotherapy.

TABLE 2 — Combination Chemotherapy of Head and Neck Cancer

Drug Combination	Response Rate (%)
Bleomycin, Methotrexate[3]	50
Bleomycin, Adriamycin, 5-FU, CCNU, Vincristine[3]	41
Bleomycin, Cyclophosphamide, Methotrexate, 5-FU[3]	35
Various Cis-platinum combinations[4]	38

Pre-operative Chemotherapy

The final area of chemotherapy to be discussed is the use of initial chemotherapy followed by surgery and/or radiation in untreated locally advanced squamous cell carcinoma of the head and neck. Because locally advanced head and neck carcinoma is many times technically difficult to resect, has high recurrence rates, and because both surgery and radiation alter blood supply to the tumor bed, oncologists have continued to search for adjuvant means to improve cure and survival rates. Pre-operative radiation has not won an established place because of its tendency to increase the morbidity of subsequent surgery and its failure to significantly increase patient survival.

Initial experience with pre-operative chemotherapy using single-agent Methotrexate failed to demonstrate significant increases in survival rates or disease-free intervals. More recently, multiple studies have appeared using combinations of drugs (Table 3), suggesting an increase in survival and disease-free intervals in complete responders. Our own experience at this institute using a combination of Methotrexate and Cis-platinum supports this concept.

A word of caution about this approach: most of these studies, including our own, suffer from multiple faults. These include: small numbers of patients, short follow-up periods, use of historic controls, and non-randomization of patients. For these reasons, I view pre-operative chemotherapy as a still unproven, although promising, approach to locally advanced head and neck cancer.

TABLE 3 — Adjuvant Chemotherapy to Subsequent Radiation and/or Surgery

Drug Combination	Complete Response Rate	Median Disease Free Survival of CR*(mos)
Bleomycin, Cis-platinum, Methotrexate[5]	88%	10+
Vincristine, Methotrexate, Bleomycin[6]	65	7+
Cis-platinum, Vincristine, Bleomycin[7]	50	8+
Bleomycin, Cis-platinum[8]	73	13.5+

*CR = complete remissions.

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Ru-Tuss Tablets act continuously for 10 to 12 hours
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings.)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

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Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.
Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

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president's letter



M.A.G. — Health Planning Watchdog

THE National Health Planning and Resources Development Act authorized the creation of HSAs (Health Systems Agencies), SHPDA (State Health Planning and Development Agency), and SHCC (Statewide Health Coordinating Council) in Georgia as of January, 1975.

The MAG Committee on Health Planning has been consistently active in matters relating to health planning. By working with the HSAs, we can have a greater voice in their activities. Physician Task Forces of MAG serve to insure that important decisions made by the HSAs are responsive to the medical needs of Georgians.

The task of the watchdog on the HSAs, SHPDA, and SHCC is tedious and time-consuming. Your Medical Association strongly feels that it is not only important but also imperative that we continue to monitor and influence the course of health planning in Georgia and to insure that physicians are involved in decisions affecting health care.

More than $13 million has been spent on health planning in Georgia in fiscal years 1977, '78, '79, and '80. Yet not one dollar of this $13 million has gone towards providing *patient care*.

Despite the questionable effectiveness of the HSAs and the entire health planning program, you can make bet that we are involved with an extremely important reality of medicine that is not going to go away. And that, my colleagues, is why it is absolutely vital that physicians be represented in all health planning processes. Subsequently, you can lay further bet that this will continue to be done by your Association.

H. Hilt Hammett Jr., M. D.

H. Hilt Hammett, Jr, M.D.
President, M.A.G.

the association
the association
the association

NEW MEMBERS

Alexander, Donald W., MAA—ACT—OTO
3280 Howell Mill Rd., NW, Ste. 333, Atlanta 30327

Allen, Bruce S., Richmond—N-2—D
Medical College of Georgia, Dermatology Dept., Augusta 30912

Allsbrook, William C., Jr., Richmond—N-2—PTH
Medical College of Georgia, Pathology Dept., Augusta 30912

Beckwith, M. M., Richmond—N-2—PS
3623 Dewey Gray Cir., Ste. 207, Augusta 30909

Berson, Michael J., Newton-Rockdale—ACT—U
1400 Milstead Rd., Conyers 30207

Black, Marcus, Ogeechee—N-2—IM/HEM
204 N. College St., Statesboro 30458

Brubaker, Leonard H., Richmond—ACT—ON/HEM
Medical College of Georgia, Augusta 30912

Epps, John M., Richmond—ACT—OBG
Medical College of Georgia, Augusta 30907

Glenn, James F., MAA—ACT—U
Emory University School of Medicine, Atlanta 30322

Hall, David P., MAA—I&R—IM
2736 Laurel Ridge Dr., Decatur 30033

Hallenborg, Bruce P., Cobb—ACT—N
3903 S. Cobb Dr., Smyrna 30080

Hooda, S. K., Laurens—N-2—CD/IM
VA Medical Center, Dublin 31021

Hooks, Vendie H., III, Richmond—N-2—GS
Medical College of Georgia, Augusta 30912

Jay, Walter M., Richmond—ACT—OPH
Medical College of Georgia, Augusta 30912

Jones, Roger C., Walker-Catoosa-Dade—N-2—IM
150 Gross Crescent, Ste. 300, Ft. Oglethorpe 30742

Kalathoor, Parandhama R., Southeast Georgia—N-2—U
404 Maple Dr., Vidalia 30474

Kessinger, John M., Bibb—N-2—CD/TS
770 Pine St., Ste. 300, Macon 31201

Lawhorne, Thomas W., Jr., Muscogee—N-2—GS
Doctors Bldg., Ste. 221, Columbus 31901

Mani, Murugiah, MAA—ACT—AN
300 Boulevard NE, Anesthesiology, Atlanta 30312

Murrell, Kevin J., Richmond—I&R—P
Medical College of Georgia, Augusta 30912

Neill, James R., Thomas Area—ACT—IM
918 S. Broad St., Thomasville 31792

Nielson, Craig M., Dougherty—ACT—PUD/IM
901 N. Madison, Albany 31708

Puri, Ram K., Laurens—N-2—PUD
VA Medical Center, Dublin 31021

Ravelo, Francisco, South Georgia—ACT—PTH
Pendleton Dr., Doctors Bldg., Valdosta 31601

Rhoades, Robert B., Richmond—ACT—AL/PD
Doctors Hospital Medical Plaza, Ste. 300, Augusta 30909

Roberts, Phillip L., Dougherty—N-2—IM/HEM
803 N. Jefferson St., Albany 31707

Rossner, Stephen D., Cobb—N-2—CD
670 Cherokee St., Marietta 30060

Speir, William A., Richmond—ACT—PUD
1120 15th St., Augusta 30912

Steinken, Michael J., Dougherty—N-2—PD
1700 E. Broad St., Albany 31705

Yancey, Kim B., Richmond—I&R—D
Medical College of Georgia, Augusta 30912

PERSONALS

First District

Melvin L. Haysman, M.D., of Savannah, was recently named a Fellow of the American College of Chest Physicians at their 46th Annual Scientific Assembly held in Boston.

Fourth District

Edward M. Gotlieb, M.D., was named co-chairman of the private practice group of the Society for Adolescent Medicine at their national meeting October 23-25.

Fifth District

MAG members, **Rodrigo Cabezas, M.D.,** and **John L. Waller, M.D.,** both of Atlanta, were inducted as Fellows into the American College of Chest Physicians at their meeting in Boston.

H. Dwight Cavanaugh, M.D., professor and chairman of the Ophthalomology Department at Emory University, spoke to a joint meeting of the Lithonia, Stone

Mountain, Tucker, and Northlake Lions' Clubs recently. His topic was on the prevention and treatment of eye disease.

Louis J. Elsas, II, M.D., of Atlanta, was the U.S. sponsor for a delegation of 38 physicians and scientists at the first International Symposium on Inborn Errors of Metabolism in Humans, held in Interlaken, Switzerland, in September. Dr. Elsas was honored for spearheading Georgia's newborn blood screening program.

Delutha H. King, Jr., M.D., of Atlanta, has been appointed to a 6-year term on the National Council on Health Planning and Development.

Marvin L. Marchman, M.D., was elected president of the Shallowford Community Hospital Medical Staff for 1980-81. **Melvin N. Abend, M.D.,** also of Atlanta, is president-elect.

Atlanta psychiatrist, **Jonas Robitscher, M.D.,** was awarded the Golden Apple Award for his achievements in forensic psychiatry. The award was presented by the American Academy of Psychiatry and Law at its annual meeting in Chicago on October 17.

Harvey A. Weiss, M.D., of Atlanta, was appointed Chief of Surgery at Northside Hospital on October 1, 1980.

Sixth District

Milford Hatcher, M.D., Macon general surgeon, was presented with Bibb County Medical Society's first Distinguished Service Award at their annual awards dinner last November 12.

Ferrol A. Sams, III, M.D., recently joined the medical staff of Sams Clinic in Fayetteville.

Seventh District

James S. Cheatham, M.D., a Smyrna psychiatrist, was recently named director of the new psychogeriatric unit at Brawner Psychiatric Institute.

The Douglas General Hospital has elected medical officers for 1981. MAG-member **Howard Colier, M.D.,** of Lithia Springs, was voted president-elect.

Marietta family physician, **William Tryon, M.D.,** was named as one of the "Winning Team" at the American Cancer Society, Georgia Division's, 34th annual Directors' Meeting. The "Winning Team" includes those Georgia physicians who made significant contributions to the Cancer Society in the 1970s.

The Dalton *Daily Citizens News* honored **David A. Wells, M.D.,** with an article on his new position as president of the Medical College of Georgia's Alumni Association.

Eighth District

Tommy K. Stapleton, M.D., a Douglas family practitioner, was elected President of the Georgia Academy of Family Physicians.

Tenth District

The *Valdosta Daily Times* published an article on **Daniel Feldman, M.D.,** and **Lynne Di Mascio, M.D.,** a pediatric husband-wife team in Valdosta.

SOCIETIES

At its meeting last November, the **Douglas County Medical Society** elected their officers for the new year. **Carlos Selmonosky, M.D.,** of Austell, was elected president; **A. Clark Robinson, M.D.,** Douglasville, vice-president and president-elect; **Joseph G. Bussey, M.D.,** Austell, secretary-treasurer and delegate to the MAG; and **Surender Kumar, M.D.,** Lithia Springs, alternate delegate to the MAG.

The **Ninth District Medical Society** has elected their officers for 1980-81. **B. A. McCrum, M.D.,** a Gainesville gynecologist, was elected president, and **Charles H. Little, M.D.,** a Gainesville orthopedist, secretary-treasurer. The Society has proposed a major change in scheduling its meetings. In the past, the Society met once in the fall and spring for a half-day program. The proposed change, which is subject to approval by the membership, would have the Society meet once a year for a full day program aimed at obtaining 6 hours of continuing medical education credit. A tentative program has been set for April, with speakers coming from Ohio, Tennessee, North Carolina, and Georgia.

DEATHS

Owen K. Tidwell

Monroe physician, Owen K. Tidwell, M.D., 52, was found shot to death in his car on Oct. 30, 1980.

Dr. Tidwell was chief of the medical staff and radiologist at the Walton County Hospital. He was born in Birmingham, Alabama, attended Howard College, and was a graduate of the University of Alabama Medical College. He served in the U.S. Army and was a member of St. Alban's Episcopal Church. He had lived in Walton County for 3 years.

Survivors include his wife, one sister, one brother, and his stepmother.

O. D. Gilliam, Sr.

O. D. Gilliam, Sr., M.D., 81, of Columbus died Nov. 1, 1980.

Dr. Gilliam was born in Murphy, North Carolina, and had lived in Columbus for the last 56 years. He retired in December, 1979, having practiced medicine for 55 years.

Survivors include a daughter, two sons, two sisters, a brother, eight grandchildren, and eight great-grandchildren.

John T. King, Sr.

Thomasville physician and community leader, John T. King, Sr., M.D., 86, died Nov. 16, 1980, after a lengthy illness.

Dr. King began his otolaryngology practice in Thomasville in 1924. He was active in many civic organizations, primarily with the Thomasville Rotary Club. In 1977 he received the Paul Hams Foundation award, the highest honor accorded to a Rotarian. He served 7 years as a member of the Thomasville Board of Education and was on the Board of Directors for the YMCA, the Chamber of Commerce, the Boy Scouts of America, and the Thomas County Red Cross chapter. He was presented with the Kiwanis Club's Youth Welfare award for his medical services to underprivileged children and was honored by the Thomasville Junior Service League for his 18 years' service to young people through the League's Eye, Ear, Nose, and Throat Clinic. In 1974, Dr. King was named Senior Citizen of the Year and was also recognized by the Monticello, Florida, Kiwanis Club for his services to the young people in that community.

Born March 1, 1894, Dr. King graduated from the Southern School of Pharmacy in 1915 and worked as a pharmacist while pursuing his medical degree. After graduating in 1919 from Emory University School of Medicine, he spent a year's internship at Grady Hospital and 3 years in specialized study at the Brooklyn Eye, Ear, Nose, and Throat Hospital before starting his practice in Thomasville.

Survivors include his wife, two sons, a brother, and four grandchildren.

Physician's Recognition Award Recipients

LISTED BELOW *are those physicians in Georgia who have earned the AMA's Physician's Recognition Award for October 1980.*

The award was established in 1969 "to recognize, encourage and support physicians who participate regularly in continuing medical education and to emphasize the importance of developing more meaningful continuing medical education opportunities for physicians." A minimum of 150 credit hours of CME must be earned over a three-year period to qualify for the award. The hours may include such activities as conferences, residencies, teaching, writing, private reading, listening to cassettes, home study courses, consultation, and peer review; at least 60 of the hours, however, must be from formal CME programs sponsored or co-sponsored by organizations accredited for these activities.

We congratulate the following physicians who have distinguished themselves and their profession by their commitment to continuing education:

William La Fayette Amos, Columbus
George Foster Armstrong, Columbus
Jeffrey David Band, Atlanta
Morton Phillip Berenson, Columbus
Joseph Leonard Berg, Albany
Merrill Berman, Austell
Allan Bleich, Atlanta
Clorinda Scarpa S. Bohler, Augusta
William Augustus Bootle, Warner Robins
Steven Carlo Brena, Decatur
Carl H. Brennan, Savannah
James Amos Brigman, Atlanta
Paul Collins Broun, Americus
Miguel Angel Cartagena, Fort Gordon
Sandy Baxter Carter, Atlanta
Rudolph Cartwright, East Point
Sun Ik Choi, La Grange
David Max Cohen, Atlanta
David Lawrence Cooper, Riverdale
Carl LeRoy Crawford, Warner Robins
John Harry Crosby, Augusta
Benjamin Benitez DeGracia, Atlanta
Jayaprakash Desai, Toccoa
Jagadishwar Devkota, Augusta
Grady F. Duke, Griffin
Jonathan Steven Ehrlich, Atlanta
Dan Berlin Elrod, Hazlehurst
Mehboob M. Fatteh, Augusta
William Rutledge Fisher, Atlanta
Edwin Reese Forsberg, Columbus
Paul Denis Gauthier, Jeffersonville
Francis M. Gay, Moultrie
Michel Amos Glucksman, Brunswick
Lester M. Haddad, Savannah
Abdul Hamid Hadi, Augusta
Taneemul Haque, Augusta
Steven George Helm, Augusta
Fernando O. G. Hernandez, Warner Robins
Edwin Lee Hiatt, Valdosta
Frank Millard Houser, Macon
Wayne Gary Hulsey, Lilburn
Dirk Erik Huttenbach, Marietta
Ronald Isaacson, Savannah
Milton Irvin Johnson, Macon
George Winford Jones, Atlanta
Hee Chang Jung, Riverdale
Donald Mead Kurtz, Columbus
Lorenzo M. Lecumberri, Savannah
John L. Luetkemeyer, Columbus
Dale Lynn McCord, Atlanta
William L. McDaniel, Dalton
Park Robert Mitchell, Marietta
William E. Mitchell, Atlanta
Ellyn Zunker Musser, Marietta
Wing-Sheung Ng, Warner Robins
Henry Stone Pepin, Thomasville
Peter Phillips, Atlanta
Suzanne G. Pratt, Rome
Albert Paul Rauber, Atlanta
Jack E. Raybourne, Macon
William Charles Rhangos, Savannah
John William Richards, Fort Gordon
Gary Oser Richman, Atlanta
Thomas William Rickner, Dublin
Stephen Joseph Rudolph, Douglas
Lawrence Edward Ruf, Savannah
Drayton M. Sanders, Dalton
John Woodrow Sanders, Albany
Kenneth Anthony Scheidt, Atlanta
Julius Sherwinter, Atlanta
Syed Haider Ali Shirazi, Marietta
Barry David Silverman, Atlanta
Robert Louie Smith, Augusta
Thomas Fugate Smith, Atlanta
Minnie H. Lawrence Souma, Columbus
Shaw Cheng-Tsuau Su, Savannah
Roland Steven Summers, Savannah
Robert Eugene Thompson, Toccoa
Joel Dennis Todino, Rome
Rose Corinth Trincher, Augusta
Nirmala Jayarama Upadhya, Dublin
Raymond S. Van Harn, Savannah
Russell W. Wallace, Decatur
Robert Drane Waller, Albany
William Isaac Waller, Savannah
James Patrick Ware, Atlanta
John Heath West, Savannah
Howard J. Williams, Macon
Joseph Post Williams, Athens
August S. Yochem, Atlanta
John Arthur Youngberg, Clarkston
Mohammad Zafiruddin, Augusta

Highlights of The 1980 MAG Scientific Assembly

"This is one of the best medical meetings in all respects that I ever attended. . . . "

"Good program — excellent concept."

"Thanks for allowing some of us to be your guests again."

"Keep it up!"

These are a just a few of the remarks we have received about the 1980 Scientific Assembly. Held last November at the Omni Hotel in Atlanta, the meeting enjoyed success in every respect:

—**attendance** (over 900 physicians, medical students and other health professionals registered)
—**quality** of presentations (eighty-eight speakers from across the nation)
—**diversity** of programs (seventeen medical topics, presented by twenty-one state and local specialty societies).

Next year's Scientific Assembly will be held at the Omni Hotel, November 19-22, 1981. The Chairman is C. Rex Teeslink, M.D., of Augusta.

(Reported by Stephen Davis, MAG Director of Education.)



Delivering this year's Calhoun Lecture was George L. Blackburn, M.D., Ph.D., Chief, Nutrition/Metabolism Laboratories, Cancer Research Institute at Boston's New England Deaconess Hospital. Dr. Blackburn spoke on the need for nutritional assessment in biometric measurements of critically-ill hospitalized patients. His address was given as part of a special MAG session on nutrition.



Following his Calhoun Lecture, Dr. Blackburn joined other physicians for a panel discussion on "Nutrition and the Hospitalized Patient." Pictured are (l-r): Dr. Blackburn; C. Wayne Calloway, M.D., who is associated with both the Mayo Clinic in Rochester, MN, and NIH in Bethesda, MD; Daniel Rudman, M.D., from Emory University School of Medicine; and Elaine Feldman, M.D., from the Medical College of Georgia. The panelists dealt with the theoretical and practical evaluations of the nutritional status of patients, and responded to a variety of questions about the causes and treatment of malnutrition.



Gathered for some informal conversation near the registration area on Friday afternoon are (l-r): James Moffett, Executive Director of the MAG; Tom Sawyer, an Assistant Executive Director; Harrison L. Rogers, M.D., Vice-Speaker, AMA House of Delegates; H. Hilt Hammett, Jr., M.D., President of the MAG; and Stephen Davis, MAG's Director of Education.



A study in concentration: Dr. Charles D. Hollis, Jr., listens to Dr. Norton J. Greenberger from the University of Kansas speak on the evaluation and management of malabsorption at Friday afternoon's Gastroenterology Program.



After introduction by Dr. William C. Waters, III, H. Hilt Hammett, Jr., M.D., addressed the Friday afternoon meeting of the Georgia Gastroenterologic Society. Dr. Hammett welcomed the audience with a brief background of the Scientific Assembly and spoke on the history of the Gastroenterologic Society's participation in MAG activities. On Saturday afternoon, he spoke again to MAG members and welcomed them to the Calhoun Lecture.



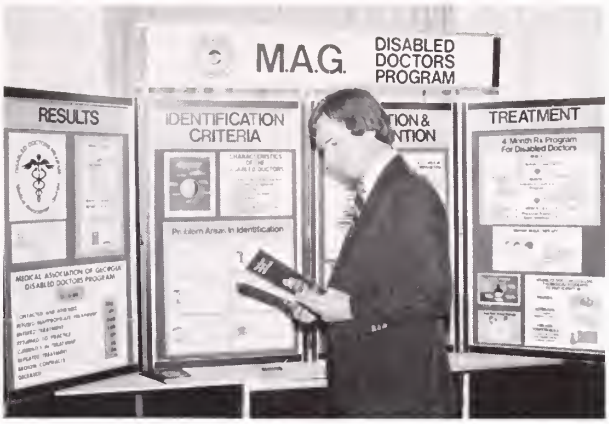
In "hands on" clinical instruction sponsored by the Georgia Orthopedic Society, Dr. Andrew Brooker of Johns Hopkins University uses the humerus to demonstrate external frame fixation.



Mervin Shalowitz, M.D., was guest speaker at the annual luncheon sponsored by the Georgia Society of Internal Medicine. His topic, "The IPA Alternative — HMOs Are Here To Stay!" focused on prepaid health care and its future effects on the medical community. Dr. Shalowitz is Medical Director of Intergroup Prepaid Health Services, Inc., in Illinois, and Clinical Professor of Medicine, Stritch School of Medicine, Loyola University, Chicago.



Standing in front of the exhibit of the Social Security Disability Program are (l-r): Dr. Robert Gillespie; Mr. James Bell, District Adjudication Supervisor; and Dr. Bernard Wolff. Drs. Gillespie and Wolff are medical consultants for the disability program of Social Security. To determine eligibility for benefits, these and other doctors use criteria set by Congress and obtain available medical information from attending physicians, hospital records, and consultations.



Among the dozen exhibits at this year's meeting was that of MAG's Disabled Doctors Program. Georgia's program has served as a prototype for other states throughout the country. Since its inception 5 years ago, 168 impaired physicians have returned to active practice after participating in and completing this program.



This photo shows Dr. David A. Fischer from the University of Minnesota demonstrating external fixation of the pelvis. He described new concepts, frame design, and subsequent results of the technique. Dr. Noble Hansen from Johns Hopkins University spoke on external fixation of the pelvis just prior to Dr. Fischer's demonstration as part of the program sponsored by the Georgia Orthopedic Society.



The Otolaryngology Program on Friday featured Drs. Mark May of Pittsburgh and Mark Singer of Indianapolis. Here, Dr. Singer (left) illustrates the Blom-Singer Prothesis with patient Pat Morgan of Birmingham. Looking on is Dr. William E. Silver, of Atlanta, Otolaryngology Program Chairman.



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† Rollo, I.M.: Drugs used in the chemotherapy of helminthiasis, in Goodman, L.S.; and Gilman, A. (eds.): *The Pharmacological Basis of Therapeutics*, ed. 5. New York, Macmillan, 1975, p. 1034.

†† Miller, M.J.; Krupp, I.M.; Little, M.D.; Santos, C.: Mebendazole an effective anthelmintic for trichuriasis and enterobiasis. *JAMA* 230 (10): 1412-1414, Dec. 9, 1974.

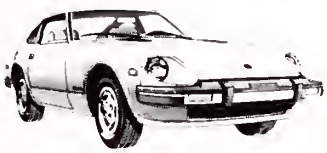
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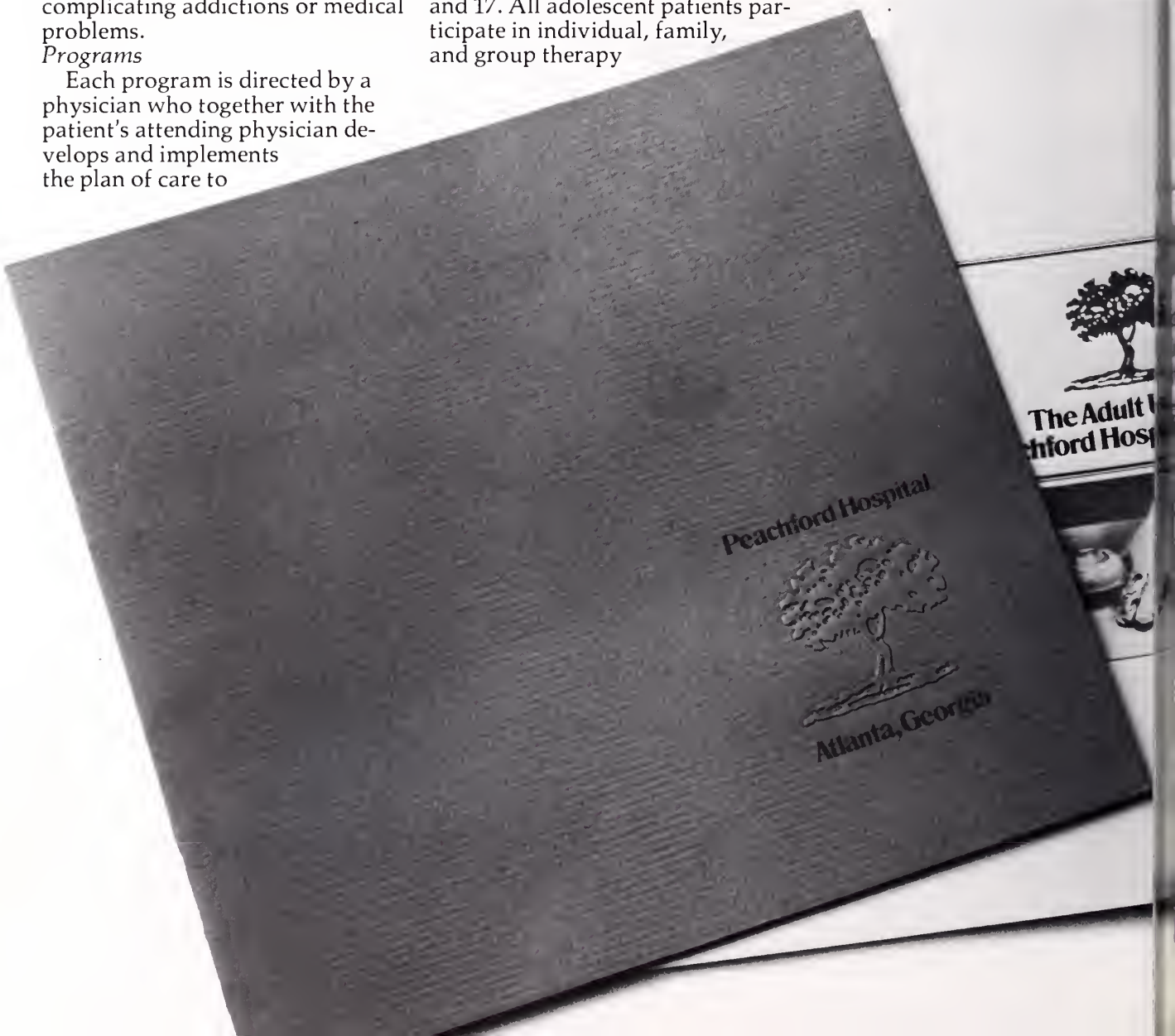
Programs

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Adult Psychiatric Program — provides a structured therapeutic milieu approach with multiple teams of up to 13 patients each for individuals 18 years of age and older. Individual and group therapies are conducted daily, with activities therapy and clinical social work services scheduled throughout the week.

Adolescent Psychiatric Program– consists of treatment units of 16 patients each between the ages of 13 and 17. All adolescent patients participate in individual, family, and group therapy sessions, some daily and some scheduled throughout the week. Educational needs are met on an individualized basis in an organiz classroom setting. Parents of the patients meet together weekly in group sessions to discuss commo issues and concerns.

Child Psychiatric Program — designed as a 12 patient unit and provides individualized services f children between the ages of 4 an 12. The structured daily program for all children includes individua



rious problems.

d group therapy sessions, as well individualized programs for edu- ion, activities therapy, develop- ntal play, and social services. t, dance, music, occupational, d recreation therapy are vital mponents of the program. rents are involved in family sions and parents' groups.

Addictive Disease Program — ludes detoxification, intermediate care, and aftercare services based on the philosophy of Alcoholics Anonymous. The treatment program is designed to focus on the total person through participation in educational lectures, group therapy, activities therapy, and family programs. The goal of the program is to teach the addicted individual a manner of living by which he or she may remain free of all addictive substances.

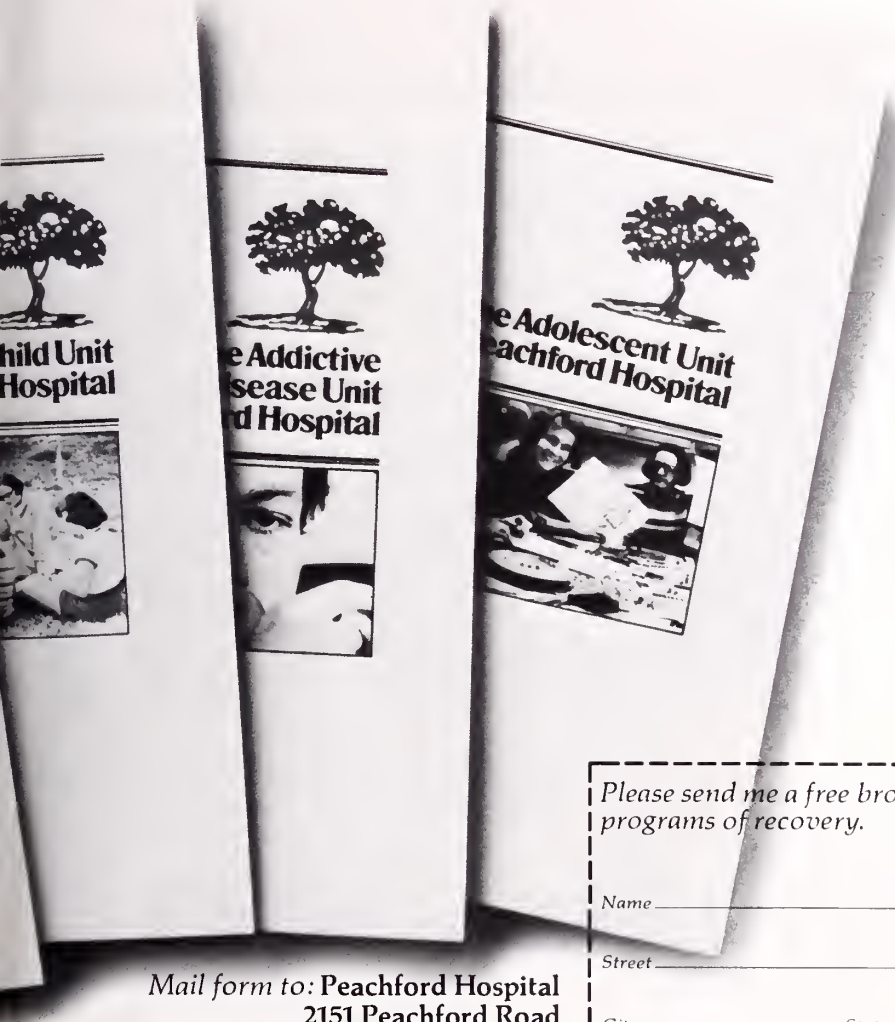
The hospital has an open medical staff including psychiatrists, other medical specialists and allied professionals. Separate committees supervise the children's program, adolescent program, adult psychiatric program and the alcohol and drug abuse unit.

The professional staff consists of nurses, social workers, recreational therapists, occupational therapists, art therapists, music therapists, dance therapists, teachers and counselors.

Physical Facilities — located on 37 acres of rolling, wooded land just north of I-285 in DeKalb County, the hospital is near the Shallowford Community Hospital which provides medical support for Peachford Hospital. Peachford is equipped with an x-ray department, a laboratory, emergency treatment rooms, auditorium, gymnasium, adolescent and children's schools, group therapy rooms, activities therapy rooms, year-round swimming pool, tennis courts, and athletic field for softball, football, volleyball, basketball and badminton.

Peachford Hospital is owned by Charter Medical Corporation, Macon, Georgia. Each service is fully accredited by the Joint Commission on the Accreditation of Hospitals.

For your free brochure, or for a personal tour of the facilities and an explanation of the programs, please contact Peachford Hospital at (404) 455-3200, or use the order blank below.



Please send me a free brochure about Peachford Hospital's programs of recovery.

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Mail form to: **Peachford Hospital**
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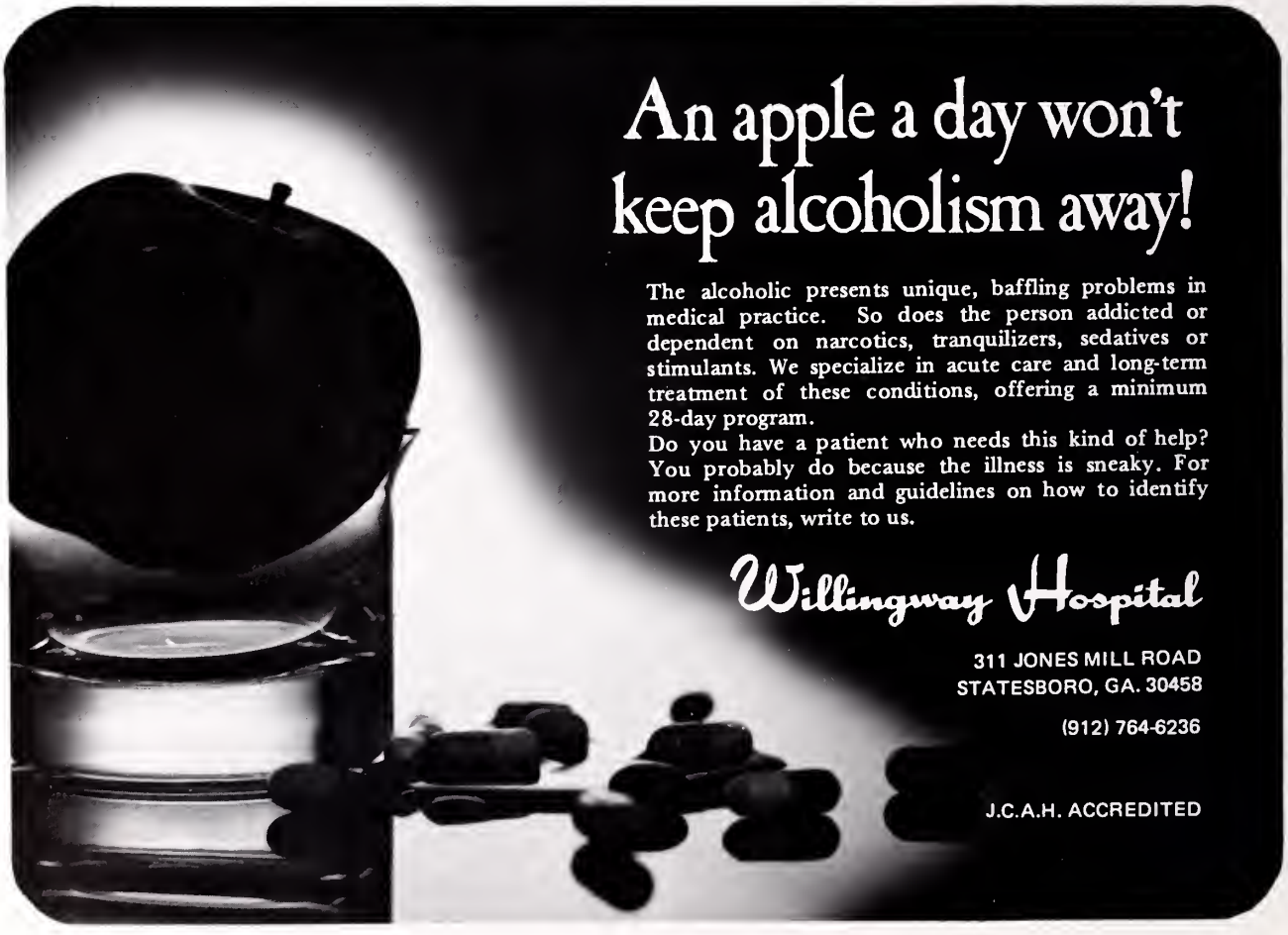
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JOURNAL of the medical association of georgia

938 Peachtree Street, NE / Atlanta, Georgia 30309

MANUSCRIPTS — Articles are accepted for publication on the condition that they are contributed solely in this *Journal*. Manuscripts should be typewritten, double-spaced, and the original and one copy should be submitted. Receipt of manuscripts will be acknowledged and unused manuscripts returned. Used manuscripts will be returned only if requested.

STYLE — Ordinarily articles should not exceed 3,000 words. Only under exceptional circumstances will articles of over 4,000 words be published. Footnotes, bibliographies, and legends should be typed on separate sheets, double-spaced. Bibliographies should conform to the following style: name of author (with initials), title of article, name of periodical, date, volume (number, if available), and pages.

> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

NEWS NOTES — District and county medical societies, Association members, and readers are invited to send in any news items of general concern to members of the Medical Association of Georgia.

REPRINTS — Requests for reprints should be made directly to The Ovid Bell Press, Inc., 1201-05 Bluff Street, Fulton, Missouri 65251. Reprints must be ordered within 30 days after publication, since all type will be destroyed after that time.

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MEDICAL EDITING SERVICE — If in the opinion of the *Journal* Editorial Board, material submitted for publication could be improved by a Medical Editing Service, the Editor will contact the author for his approval. Association members needing assistance in preparation of material for publication may also use this service. A reasonable charge is made for this service and the cost of this will be borne by the author.

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Central State Hospital, Milledgeville, has need for specialists in the fields of psychiatry, pediatrics, and surgery. Beginning salary up to $47,406 annually, depending on qualifications — subsequent annual increases of approximately 5%. Excellent fringe benefits. Qualifications: Graduation from a medical school recognized by the Composite State Board of Medical Examiners and training and supervised clinical experience sufficient to qualify as Board eligible for the appropriate medical specialty and licensure to practice medicine at a state institution or in the State of Georgia as provided by state law. For additional information, contact B. T. Atchison, Personnel Analyst, Central State Hospital, Milledgeville, GA 31062. Phone: (912) 453-4094. Applications will be accepted continuously until suitable applicants are located. Equal Opportunity Employer.

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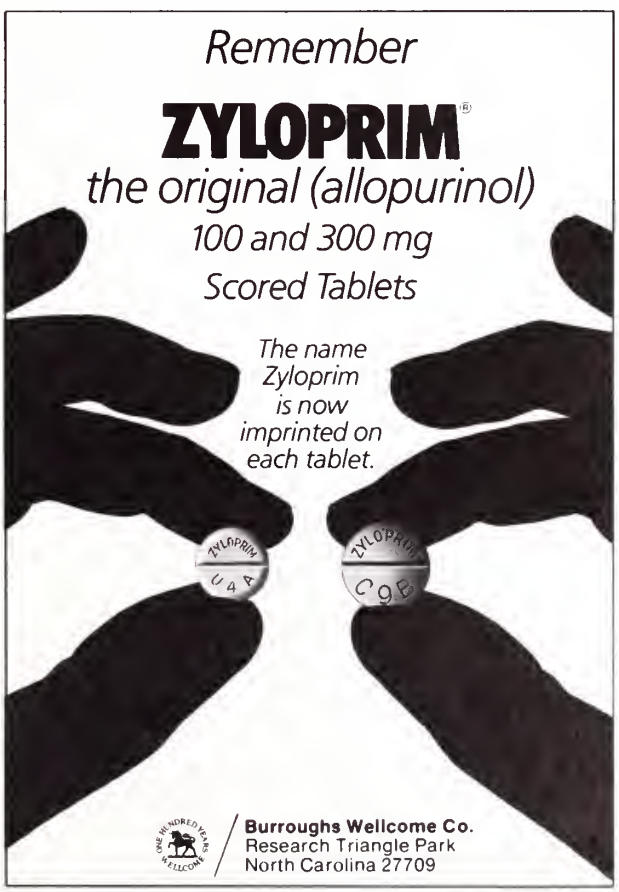
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Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Branchitis and pneumonia caused by *S. pneumaniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemalytic streptocacci and staphylocacci, non-penicillinase praducers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should nat be used in any *E. cali* and *P. mirabilis* infections ather than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitar effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted priar to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with histary of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosparin. Before penicillin therapy, carefully inquire about previaus hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discantinue drug and initiate appropriate therapy. Serious anaphylactaid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steraids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use af antibiatics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Categary B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed na evidence of impaired fertility or harm to the fetus due ta cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given ta a nursing waman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with ather penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity ar with history of allergy, asthma, hay fever, or urticaria. Adverse reactians reparted with cyclacillin: diarrhea (in appraximately 1 out af 20 patients treated), nausea and vomiting (in appraximately 1 in 50), and skin rash (in approximately 1 in 60). Isalated instances af headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukapenia, neutropenia and eosinaphilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reparted.

As with antibiatic therapy generally, continue treatment at least 48 to 72 haurs after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptacoccal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacterialagic and clinical appraisal is necessary during therapy and possibly for several manths after. Persistent infection may require treatment for several weeks.

Cyclacillin is nat indicated in children under 2 months of age.

Patients with *Renal Failure* Cyclacillin may be safely administered ta patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dasage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced dases)

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Bronchitis and Pneumonia		
Mild ar Maderate Infectians	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Ohtis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin *Structures*	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

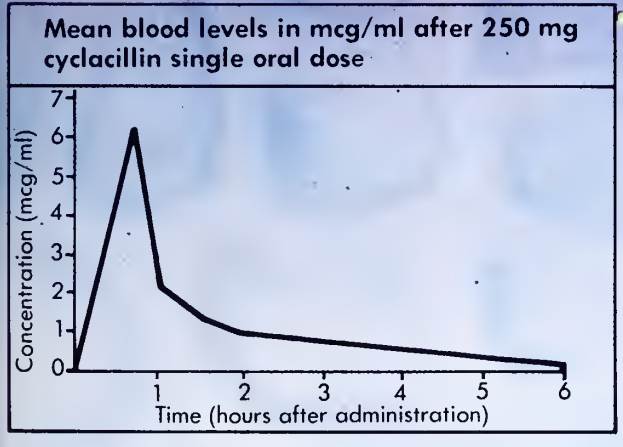
*Dosage should not result in a dose higher than that for adults.
†depending on severity

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*Based on T^{α} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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†Due to susceptible organisms.

See important information on facing page.

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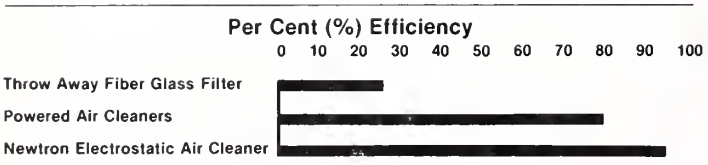
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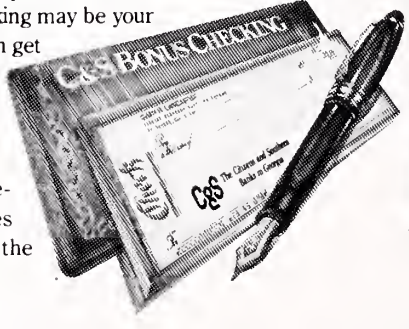
Minimum Monthly Balance	5¼% Interest Earned Monthly (1)	Monthly Service Charges That Apply (2)	Total Monthly Earnings or Cost
3,000	12.97	0	12.97
2,000	8.64	0	8.64
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350	1.51	7.00	-5.49

NOTE
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JOHN HARLAND 8)	14	4/2/74	40	185%
BURNUP AND SIMS	19	4/15/74	15	(21%)
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AMERICAN MEDICORP 3)	7	4/28/76	23	228%
AMIC CORPORATION 6)	11	12/4/76	26	136%
UNITED GUARANTY 1)	10	12/4/76	29	190%
RMIC CORPORATION 2)	6	12/4/76	25	317%
MGIC	15	2/27/78	31	106%
CAPITAL CITIES 5)	28	2/27/78	66	135%
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2) Adjusted for 30% Stock Dividend 77 25% S/DIV-78 10% S/DIV-79
3) Close out buy recommendation 2-6-78
4) Adjusted for 3—2 Stock Split-Merged with Gannett-2 Q-79
5) Adjusted for 2—1 Stock Split
6) Adjusted for 3—2 Stock Split Close out by recommendation 2-7-79
7) Close out buy recommendation 6-5-79
8) Adjusted for 3—2 Stock Split

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THE COVER

The peace and beauty inherent in Callaway Gardens can only enhance the accomplishments at MAG's 127th annual meeting. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

Incidental Intelligence . . .

MAG Board Approves Development of Physician-Owned Professional Liability Insurance Company

The MAG Board of Directors approved on Jan. 10, 1981, the recommendations of the Ad Hoc Committee on Self-Insurance (the "Committee"), chaired by Charles D. Hollis, Jr., M.D., of Albany, regarding the development of a physician-owned professional liability insurance company. These recommendations were based on a detailed study performed by McNeary Insurance Consulting Services, Inc., under contract with MAG to determine whether a physician-owned company should be established in Georgia. Members of the Committee have observed similar companies in other states, such as Florida, Alabama, California, and Arizona. The experiences in these states indicate that a successfully operating company can hold down premium increases while at the same time improving the malpractice climate through medically supervised underwriting and claims procedures and aggressive tort reform.

Uncovered liability under the "claims made policy" by St. Paul ("tail coverage") will be assumed by the new company by charging a mature "claims made" premium.

After the report of careful studies by the Committee and the consultants, the MAG Board of Directors adopted the following resolutions:

1) That a physician-owned professional liability insurance company is financially feasible and would be in the best interests of the state's physicians; and that Phase II of a feasibility study be undertaken to bring specific recommendations on the operation and establishment of a company to the MAG House of Delegates in May.
2) That approximately $3,000,000 in capital be raised to start the company, with $1,500 solicited from each physician wanting to be insured by the company. A total of 2,000 initial policyholders are anticipated.
3) That the first year premium be competitive with St. Paul's, with the hope of returning a dividend out of any profits earned during the first year and with higher dividends expected in succeeding years.

More than 800 MAG members have contributed $100 each towards a feasibility study regarding the establishment of the company. This study, which is already in progress, will develop underwriting and claims procedures for the company, management and organizational structure for the company, marketing and solicitation of capital certificates to finance it, and reinsurance proposals. Complete recommendations on these issues will be brought to the MAG House of Delegates at its annual meeting, May 7-10, 1981, in Callaway Gardens.

Members are urged to become familiar with the issues involved in starting this company and express their views to their MAG delegates. Specific questions on the committee's efforts should be directed to Bert Franco at MAG Headquarters.

Hurst Receives Heart Award



(L-R): Drs. Weissler, Schlant, and Hurst.

J. Willis Hurst, M.D. (right) of Atlanta, Chairman of the Department of Medicine at Emory University, accepts the American Heart Association's (AHA) 1980 James B. Herrick Award from Arnold Weissler, M.D., (left), Chairman of the Heart Association's Council on Clinical Cardiology. Dr. Hurst was recognized for 25 years of achievement in the field of cardiology as a teacher, investigator, administrator, and physician. The prestigious award was presented at AHA's annual scientific sessions at Miami Beach. Robert Schlant, M.D. (center) of Emory introduced Dr. Hurst.

Auxiliary Support Committee Aids Medical Professionals in Crises

By definition, members of a medical auxiliary are "helpers."

With this thought in mind, the Richmond County Auxiliary last year organized a "Support Committee," a concept which has grown and is catching on in other groups.

The idea began when one auxiliary member, Mrs. Arlie E. Fiveash, of Augusta, who is an attorney as well as the wife of a physician, discovered that wives whose husbands become involved in litigation are not fully aware of ways in which they can cope and offer their help to others involved. She began by talking informally to auxiliary members and giving them ideas about how to deal with a touchy legal situation.

The original "Support Committee" has now undergone a metamorphosis and has emerged as a committee with an expanded purpose: to provide support to individuals and their families in the medical profession during any crisis.

Approximately twenty members of the Richmond County Auxiliary have volunteered to serve under team captains who will coordinate a variety of services. They will prepare food, provide transportation, drive carpools, run errands, babysit, or simply lend an ear, or a shoulder to cry on in times of loss, illness, or stress.

Each member of the committee has pledged to serve under a "rule of silence," and members have the assurance that all requested confidentiality will be strictly honored.

It is emphasized, however, that no member of the committee holds herself to be a professional counselor, but if the need arises the committee will assist in contacting a professional from their resource list.



(L-R): Mrs. Arlie E. Fiveash (Martha), Chairman of the "Support Committee"; Mrs. Taher El Gammal (Anna), Co-Chairman; and Mrs. Mark Brown (Julie), President of the Richmond County Auxiliary, discuss the work of the committee.

Mrs. Fiveash, who is being invited by other auxiliaries in Georgia and surrounding states to help in organizing similar committees, comments: "We welcome this opportunity to express in action what we pledge verbally at each meeting: '. . . to touch and to know the great, common heart of us all. . . .'"

(Reported by Mrs. Brit B. Gay, Jr. (Evelyn), A-MAG Historian and Editor of Pulse Line.*)*

New HHS Secretary's Views Offer Hope for Decreasing Government Involvement in Health Care

The nomination of former Senator Richard Schweiker (R.Pa.) as Secretary of Health and Human Services (HHS) brings to the post a man widely versed in health affairs. As ranking Republican member on the Senate Labor and Human Resources Committee and on its Health Subcommittee, the 54-year-old Schweiker has extensive knowledge of Health legislation and the federal health structure. He has expressed strong convictions about certain aspects of health, notably reservations about the extent of aid for medical education and for the National Health Service Corps.

In an interview last summer, Schweiker said a Reagan Administration will not endorse national health insurance or hospital cost containment and will move to "deregulate."

Schweiker is the author of a "pro-competition" plan that would eliminate most of the present tax deductions for private health insurance in an effort to encourage more cost-consciousness by business and consumers.

"Pro-competition" measures remove the current federal tax subsidy for purchase of private health insurance. People would receive tax-free rebates when they choose plans costing less than a set amount of premiums. High deductibles and co-insurance are encouraged. Most such bills before Congress include a catastrophic benefit as a requirement for private insurors. The intent is to foster competition among insurors to produce innovation and efficiency and to reduce waste. Much of the present regulatory apparatus would be stripped away, including Professional Standards Review Organizations (PSROs) and health planning.

One of the major bills before the House was sponsored by former Rep. David Stockman, the new Director of the Office of Management and Budget, and Rep. Richard Gephardt (D.,Mo.). Sen. David Durenberger (R., Minn.), who may be chairman of the Senate Finance Subcommittee on Health, is a pro-competition backer.



MAG's President, H. Hilt Hammett, Jr., M.D., of LaGrange, was one of several new members named by Governor George Busbee to the Composite State Board of Medical Examiners on January 7, 1981. Pictured here, from left to right, are Robert E. Thompson, M.D.; James M. Kelley, M.D.; S. Charlotte Neuberg, M.D.; Joseph Vinci, D.O.; Ms. Beth Parker (consumer); David B. Poythress, Secretary of State; Virginia Tuggle, M.D., Chairman of the Board; George Chastain, M.D.; John O'Neal, III, M.D.; H. Hilt Hammett, Jr., M.D., and Bernard Bridges, M.D.

Medicaid Update

Most MAG members are now well aware of the new statewide reimbursement system implemented Aug. 1, 1980, by the Georgia Department of Medical Assistance (Medicaid). Under this system, all physicians are being reimbursed the same amount for the same service regardless of geographic location or specialty. Many physicians have benefitted from the new system, particularly those in rural areas who had been severely limited in their reimbursement level under the old Medicaid reimbursement profile system.

However, a significant number of physicians has expressed dismay at some of the reimbursement levels under the new system. Reimbursement to these physicians has been cut drastically, especially for basic office visits and other primary care services. There are a variety of reasons for these cuts, including federal regulations and lack of funds available to pay for physicians' services in the Medicaid Program.

The MAG is working to address the problems caused by the new system. Several strategies are being pursued to make the Medicaid Program one which encourages physician participation. The MAG Committee on Third Party Relations and the MAG Committee on Legislation are working diligently on this matter.

Composite State Board of Medical Examiners' Disciplinary Actions

At the request of the Composite State Board of Medical Examiners (CSBME) (the "Board") the Medical Association of Georgia has agreed to publish the results of disciplinary actions of the Board as a public service to inform physicians throughout the State of Georgia of the actions taken by the Board.

The disciplinary actions described below constitute the actions taken by the Board and are subject to appeal by the physicians involved to an appropriate superior court pursuant to the terms of the Georgia Administrative Procedure Act.

The following are actions taken in December, 1980:

Voluntary Surrender of License

Kenneth Shoemaker, M.D.

Six-month Suspension of License

Frederick Lovell, D.O. (Non-MAG member)

MEDICAL MEETING CALENDAR

FEBRUARY

21-22—*Savannah;* **ANNUAL SCIENTIFIC MEETING OF THE GEORGIA SOCIETY OF ANESTHESIOLOGISTS;** Category 1 credit; Contact: Ga. Society of Anesthesiologists, c/o Dept. of Anesthesiology, MCG, Augusta 30912.

22-25—*New Orleans, LA;* **SOUTHEASTERN SURGICAL CONGRESS 49TH ANNUAL ASSEMBLY;** Category 1 credit; Contact: Southeastern Surgical Congress, 315 Boulevard, Ste. 500, Atlanta 30312. PH: 404/681-3636.

26—*Columbus;* **MEDICAL COLLECTIONS MANAGEMENT;** Contact: Sheila Carson or Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH: 800-282-0224 (toll-free in Ga.) or 404/876-7535.

25-26—*Atlanta;* **STARTING YOUR PRACTICE;** Category 1 credit; Contact: Sheila Carson or Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH: 800-282-0224 (toll-free in Ga.) or 404/876-7535.

27-28—*Atlanta;* **CARDIAC REHABILITATION;** Category 1 credit; Contact: International Med. Educ. Corp., Div. of Postgrad. and CME, 64 Inverness Dr., East, Englewood, CO 80112. PH: 303/773-1144 or 800-525-8646.

MARCH

2-6—*Chicago, IL;* **70TH ANNUAL MEETING OF THE U.S.-CANADIAN DIVISION OF THE INTERNATIONAL ACADEMY OF PATHOLOGY;** Contact: Nathan Kaufman, Sec.-Treas., U.S.-Canadian Div. of the International Academy of Pathology, 1003 Chafee Ave., Augusta 30903. PH: 404/724-2973.

3-6—*Durango, CO;* **EMERGENCY MEDICINE/TRAUMA;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

4-6—*Houston, TX;* **MOLECULAR INTERRELATIONS OF NUTRITION AND CANCER;** Contact: Stephen C. Stuyck, Director, Public Information and Education, M. D. Anderson Hospital and Tumor Institute, Houston, TX 77030. PH: 713/792-3030.

8-11—*Denver, CO;* **FOURTH ANNUAL CONFERENCE ON RURAL PRIMARY CARE;** Contact: National Conference, NRPCA, Box 1211, Waterville, ME 04901. PH: 207/873-1127.

8-15—*Maui, HI;* **POSTGRADUATE COURSE IN SPORTS MEDICINE;** Category 1 credit; Contact: Marianne Porter, Ctr. for Sports Medicine, 303 E. Chicago Ave., Chicago, IL 60611. PH: 312/649-7959.

9-13—*San Diego, CA;* **NINETEENTH NATIONAL CONFERENCE ON BREAST CANCER;** Contact: American College of Radiology, Breast Cancer Conference, 6900 Wisconsin Ave., Chevy Chase, MD 20015.

14-18—*Atlanta;* **INTERNATIONAL MEETING FOR THE AMERICAN FERTILITY SOCIETY;** Contact: Margaret Beckham, American Fertility Society, 1608 13th Ave., S., Ste. 101, Birmingham, AL 35256. PH: 205/933-7222.

15-16—*Orlando, FL;* **INTERNATIONAL GLAUCOMA CONGRESS;** Contact: American Society of Contemporary Ophthalmology, 6 N. Michigan Ave., Room 1110, Chicago, IL 60602.

19—*Orlando, FL;* **ARTHRITIS RHEUMATOLOGY SEMINAR;** Contact: American Society of Contemporary Medicine and Surgery, 6 N. Michigan Ave., Room 1110, Chicago, IL 60602.

20-22—*Kiawah Island, SC;* **AMERICAN COLLEGE OF PHYSICIANS MEETING;** Contact: Clarence W. Legerton, Jr., M.D., Medical Univ. Hospital, 171 Ashley Ave., Charleston, SC 29401.

21-22—*Tampa, FL;* **CONTROVERSIES IN PULMONARY MEDICINE;** Contact: Univ. of S. Florida College of Med., Dept. of Internal Med., 12901 N. 30th St., Tampa, FL 33612.

22-25—*Atlanta;* **ATLANTA GRADUATE MEDICAL ASSEMBLY;** Contact: Medical Assn. of Atlanta, 875 W. Peachtree St., NE, Atlanta 30309. PH: 404/881-1714.

23-25—*Savannah;* **PEDIATRIC OPHTHALMOLOGY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

26—*Atlanta;* **TEAM BUILDING—A BETTER WAY TO SUPERVISE;** Contact: Sheila Carson or Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH: 404/876-7535 or 800/282-0224.

27-28—*Atlanta;* **STARTING YOUR PRACTICE;** Category 1 credit; Contact: Sheila Carson or Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH: 404/876-7535 or 800/282-0224.

29-Apr. 2—*New Orleans, LA;* **SPRING MEETING, AMERICAN COLLEGE OF SURGEONS;** Contact: American College of Surgeons, 55 East Erie St., Chicago, IL 60611. PH: 312/664-4050.

APRIL

4-8—*Washington, DC;* **37TH ANNUAL CONGRESS OF THE AMERICAN COLLEGE OF ALLERGISTS;** Category 1 credit; Contact: Shirley Schoenberger, American College of Allergists, 2141 14th St., Boulder, CO 80302. PH: 303/447-8111.

9-11—*Atlanta;* **POSTGRADUATE COURSE IN GYNECOLOGIC ONCOLOGY AND COLPOSCOPY;** Contact: Ernest W. Franklin, III, M.D., The Foundation for Gynecologic Oncology, Inc., 5669 Peachtree-Dunwoody Rd., NE, Ste. 100, Atlanta 30312.

23-25—*Washington, DC;* **NATIONAL CONFERENCE ON HUMAN VALUES AND CANCER—PSYCHOLOGICAL, SOCIAL, & ETHICAL ISSUES;** Category 1 credit; Contact: Nicholas G. Bottiglieri, M.D., American Cancer Society, National Conference on Human Values & Cancer, 777 Third Ave., New York, NY 10017. PH: 212/371-2900.

24-25—*Augusta;* **DISEASE PREVENTION AND HEALTH MAINTENANCE;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912.

24-26—*Atlanta;* **1ST ANNUAL INTERNATIONAL EYE CONGRESS,** Contact: Linda Albright, Congress Coordinator, Metropolitan Eye & Ear Hospital, 3223 Howell Mill Rd., NW, Atlanta 30327.

Information on upcoming medical meetings should be sent well in advance to: Education Division, Medical Association of Georgia, 938 Peachtree St., NE, Atlanta, GA 30309.



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* Mean cure rate of VERMOX® in treating whipworm; cure rate range of 61-75%. Data on file at Janssen Pharmaceutica Inc.

** Mean egg reduction of VERMOX® in treating whipworm; egg reduction range of 70-99%. Data on file at Janssen Pharmaceutica Inc.

† Rollo, I.M.: Drugs used in the chemotherapy of helminthiasis, in Goodman, L.S.; and Gilman, A. (eds.): *The Pharmacological Basis of Therapeutics*, ed. 5. New York, Macmillan, 1975, p. 1034.

†† Miller, M.J.; Krupp, I.M.; Little, M.D.; Santos, C.: Mebendazole an effective anthelmintic for trichuriasis and enterobiasis. *JAMA* 230 (10): 1412-1414, Dec. 9, 1974.

1. Registered trademark of Merck Sharp and Dohme.
2. Registered trademark of Roerig.
3. Registered trademark of Parke-Davis.

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February 25—March 2, 1981
Seminar II
February 27—March 2, 1981
Mardi Gras Day
March 3, 1981

Topics:

Basic Microscope Techniques
Setting Up a Lab
Acute Management of the Multiple Trauma Candidate Requiring Reimplantation
Esophageal Reconstruction with Vascularized Jejunal Interposition
Head and Neck Reconstruction Via Microsurgery
Mandibular Reconstruction with Vascularized Bones and Soft Tissues
Toe to Hand Transfers
Cancer and Microsurgery
Geometry of and Planning of Microsurgery Free Flaps
Bracheal Plexus and Peripheral Nerve Microsurgery
Intracraneal Neuromicrosurgery
Urologic Microsurgery, Including Reconstructive, Replantation and Infertility
Gynecological Microsurgery Reconstruction and Infertility
Chest Wall Reconstruction with Microsurgery
Microsurgery and Trauma
Orthopedic Applications of Microsurgery
Microsurgery

Program:

The course consists of two seminars:

Seminar I A lab and alecture series, Wednesday, February 25 through Monday, March 2.
19 hours lecture and 21 hours lab, which includes b techniques with personalized instruction from visi faculty using Applied Fiberoptics binocular microscopes.

Seminar II A lecture and video series, Friday, February 27 thro Monday, March 2.
19 hours lecture and simultaneous video sessions coincide with the labs.

Accreditation:

As an organization accredited for continuing medical educati Louisiana State University School of Medicine, New Orleans, designates this continuing medical education activity as meet the criteria for forty credit hours in Category I of the Physician Recognition Award of the American Medical Association.

Registration:

Tuesday, February 24, 1:00—4:00 PM
Daily from 7:00 AM
A registration fee of $600.00 for Seminar I, or $300.00 for Sem II should accompany the registration form.
There is a $50.00 cancellation fee for withdrawals after February 1981. All refunds must be requested in writing and postmarked later than February 20, 1981. ***Residents half fee.***

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Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported at recommended doses, but use caution in administering Librax® (chlordiazepoxide HCl-Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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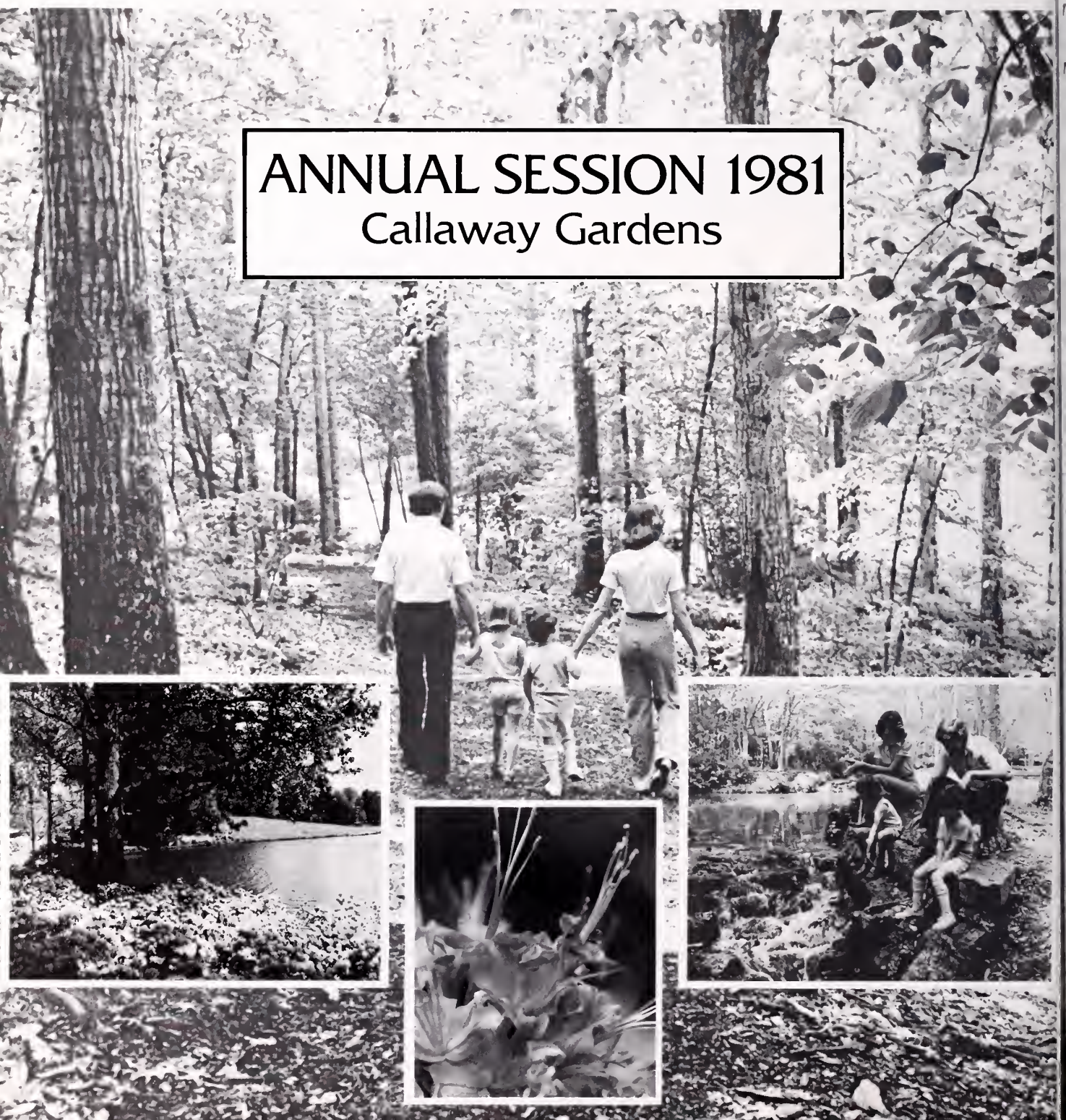
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JOURNAL
of the medical association of
georgia



ANNUAL SESSION 1981
Callaway Gardens

The 127th Annual Session of The Medical Association of Georgia

Welcome to Callaway Gardens!

To the Members of the Medical Association of Georgia
On behalf of the Meriweather-Harris-Talbot County Medical Society, I would like to extend you an invitation to attend the meeting of the House of Delegates, May 7-10, 1981 at Callaway Gardens in Pine Mountain, GA.

JAMES E. COLLINS, M.D.
President, Meriweather-Harris-Talbot CMS

On May 7, 1981, the Medical Association of Georgia's (MAG's) House of Delegates will convene at 8:00 p.m. in the Willow and Magnolia Rooms at Callaway Gardens. The House of Delegates will be preceded by a General Session of Association Members at 7:00 p.m.

This Annual Session will confine itself to the business affairs of the Association. By House of Delegates action in 1973, the scientific portion of the meeting was separated from the business portion and is held in November of each year.

Hotel Reservations

The Holiday Inn at Callaway Gardens is the headquarters for this meeting. All MAG delegates, alternate delegates, and association officers will be receiving hotel reservation cards from MAG Headquarters. All others must make reservations directly with the hotel. The address is: Callaway Gardens, Pine Mountain, GA 31822.

Registration

Registration facilities will be maintained in the foyer outside the Willow Ballroom for delegates, alternate delegates, directors, and all members. Registration hours will be as follows:

Thursday, May 7 3 p.m.-7 p.m.
Friday, May 8 7:30 a.m.-12:00 noon
Saturday, May 9 8:30 a.m.-5:00 p.m.
(After 12 noon, please come to MAG Headquarters office.)
Sunday, May 10 7:00 a.m.-12:00 noon

Headquarters Office

The MAG staff will maintain an office in the Poplar Room.

Message Center

The Auxiliary to the MAG will maintain a message desk in the foyer of the Convention Center for the convenience of the membership. The messages will be posted on a bulletin board at the message desk in the foyer.

General Sessions

The opening General Session will be called to order by MAG's president, H. Hilt Hammett, Jr., M.D., on Thursday, May 7, at 7:00 p.m. in the Willow and Magnolia Rooms. Featured during this opening ceremony will be the presentation of the report of the President of the Auxiliary to MAG.

There will be no General Session on Saturday.

The Second General Session will be held following adjournment of the House of Delegates on Sunday, May 10. At this time, the newly-elected officers will be installed.

House of Delegates

The first session of the House of Delegates will convene on Thursday, May 7, at 8:00 p.m. in the Willow and Magnolia Rooms. Nominations for MAG officers will be made, and reports of officers and committees will be presented. Resolutions and other new business will be placed before the House. Reference committees will be appointed and all resolutions and reports will be referred by the Speaker to the appropriate reference committees.

The second session of the House of Delegates will convene at 10:00 a.m. on Saturday, May 9, in the Willow and Magnolia Rooms. Reference committees will report to the House at this time.

The third and final session of the House of Delegates will convene at 9:00 a.m. on Sunday, May 10, at which time the results of the election of officers will be announced and the remaining reference committee reports will be presented.

Reference Committees

According to the Bylaws of the Association, all resolutions and reports which contain recommendations must be referred to reference committees for open hearings. All members are invited and encouraged to appear before the reference committees to express their views. The reference committees will open their hearings on Friday, May 8, at 9:00 a.m.

Election of Officers

Nominations for the officers of the Association will be made during the first session of the House of Delegates on Thursday, May 7. The election will take place before the House of Delegates on Sunday, May 10. Delegates will be certified by members of the Credentials Committee and receive their ballots at that time. Voting will be done in appropriate voting booths. After the polls close at 9:00 a.m., the Tellers Committee will count the ballots, and the results will be announced at the General Session following the adjournment of the House of Delegates. If it is necessary to have a run-off election, it will be held during the House meeting.

President's Reception

The MAG will honor its president at a reception to be held at 7:00 p.m., Saturday, May 9.

Alumni Events

Receptions and dinners sponsored by the various medical school alumni organizations are often held during the Annual Session. Notice will be made prior to the Annual Session.

GaMPAC

GaMPAC will host a breakfast Friday morning, May 8 at 8:00 a.m.

Officers of the Association
1980-1981

Office Held		Term Ending
PRESIDENT	H. Hilt Hammett, Jr., LaGrange	1981
PRESIDENT-ELECT	L. Newton Turk, Atlanta	1981
IMMEDIATE PAST PRESIDENT	Earnest C. Atkins, Atlanta	1981
PAST PRESIDENT	Carson B. Burgstiner, Savannah	1982
PAST PRESIDENT	Milton I. Johnson, Macon	1981
FIRST VICE PRESIDENT	S. William Clark, Jr., Waycross	1981
SECOND VICE PRESIDENT	William C. Collins, Atlanta	1981
SECRETARY	William D. Logan, Jr., Atlanta	1981
TREASURER	James H. Sullivan, Columbus	1981
CHAIRMAN OF THE BOARD OF DIRECTORS	Jack A. Raines, Columbus	1981
VICE CHAIRMAN OF THE BOARD OF DIRECTORS	Joe L. Nettles, Savannah	1981
SPEAKER OF THE HOUSE	Jack Menendez, Macon	1983
VICE SPEAKER OF THE HOUSE	James A. Kaufmann, Atlanta	1983
EDITOR, *JMAG*	Edgar Woody, Jr., Atlanta	1981

MAG Officers



HAMMETT



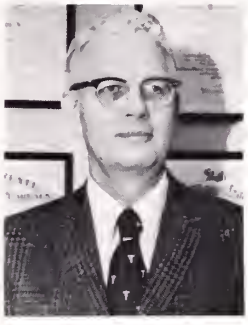
TURK



ATKINS



BURGSTINER



JOHNSON



CLARK



COLLINS



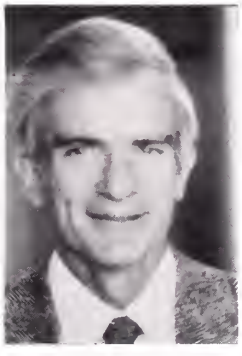
LOGAN



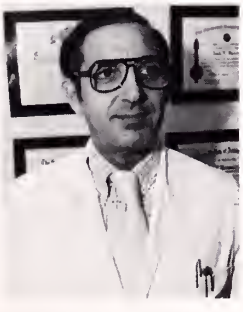
SULLIVAN



RAINES



NETTLES



MENENDEZ



KAUFMANN



WOODY

Criteria for Selection of Recipients of MAG Awards

Hardman Cup

This award is presented for "the active achievement of anyone who in the judgment of the Association has solved any outstanding problem in public health or made any discovery in medicine or surgery" or such contribution to the science of medicine. The recipient of this award will be selected by a five-man secret committee. Nominations for this award are to be made by component county medical societies, and all nominations must be accompanied by supporting biographic data and received at MAG Headquarters no later than April 1. If no nominations and supporting data are received, no award will be made. No nominations for this award will be accepted from the floor. If given, this award will be presented on Thursday, May 7. By custom, this award usually has gone to a Georgia physician; however, this is not required by the terms of the letter from Governor Hardman establishing this award.

Distinguished Service

The Distinguished Service Award is presented for distinguished and meritorious service which reflects credit and honor on the Association. Nominations for this award should be made by component county medical societies and must be received at MAG Headquarters no later than April 1. They must be accompanied by biographic data supporting the nomination. The recipient will be selected by a five-man secret committee and presentation will be made on Thursday, May 7.

Civic Endeavor Award

This award, presented for the first time at the 1969 Annual Session, will be given pursuant to an action taken by the 1968 House of Delegates in Augusta. This award is to be given for outstanding public service and participation in civic activities. Component county medical societies are invited to make nominations for this award supported by appropriate data which must be received at MAG Headquarters no later than April 1. The recipient of this award will be selected by a three-man secret committee which will determine if the nominees meet the requirements of the resolution which created this award. Presentation will be made on Thursday, May 7.

Family Physician of the Year

This award is presented to an outstanding family physician in Georgia. Selection of the recipient is made by the Board of Directors of the Georgia Academy of Family Physicians and presentation of the award is made during the Annual Session. The president of the Georgia Academy of Family Physicians (or his designee in the event of his absence) will present this award on Thursday, May 7. Deadline for receiving nominations for this award was January 16, 1981.

Component County Society Representation to the 1981 House of Delegates

(1980 CMS Member Count for 1981 Delegates to Annual Session)

County Medical Society	Number of Delegates
Altamaha	1
Baldwin	2
Barrow	1
Bartow	1
Ben Hill-Irwin	1
Bibb	10
Blue Ridge	1
Burke	1
Camden-Charlton	1
Carroll-Haralson	2
Chattahoochee	2
Cherokee-Pickens	1
Crawford W. Long	4
Clayton-Fayette	4
Cobb	11
Coffee	1
Colquitt	1
Coweta	1
Decatur-Seminole	1
DeKalb	13
Dougherty	5
Douglas	1
Elbert	1
Emanuel	1
Flint	1
Floyd-Polk-Chattooga	5
Franklin-Hart	1
Georgia Medical Society	10
Glynn	3
Gordon	1
Habersham	1
Hall	5
Jackson-Banks	1
Jefferson	1
Laurens	2
Lumpkin	1

County Medical Society	Number of Delegates
McDuffie	1
Medical Association of Atlanta	50
Meriwether-Harris-Talbot	1
Mitchell	1
Muscogee	10
Newton-Rockdale	1
Oconee Valley	1
Ocmulgee	1
Ogeechee River	2
Peach Belt	2
Randolph-Stewart-Terrell	1
Richmond	15
Screven	1
South Georgia	3
Southeast Georgia	1
Southwest Georgia	1
Spalding	2
Stephens-Rabun	2
Sumter	1
St. John's Parish	1
Thomas Area	3
Tift	2
Troup	3
Upson	1
Walker-Catoosa-Dade	2
Walton	1
Ware	3
Washington	1
Wayne	1
Whitfield-Murray	3
Wilkes	1
Worth	1

Directors and Alternate Directors

District	Director	Alternate Director	Term Ending
1	Leon E. Curry, Metter	Charles R. Richardson, Statesboro	1982
2	Sammie Dixon, Tifton	Lannie Copeland, Moultrie	1982
3	V. W. McEver, Jr., Warner Robins	L. Kenneth Raynor, Warner Robins	1982
6	James M. Skinner, Griffin	Norman P. Gardner, Thomaston	1983
7	Richard A. Griffin, III, Cartersville	Bannester L. Harbin, Jr., Rome	1983
8	Joe C. Stubbs, Valdosta	Michel A. Glucksman, Brunswick	1983
9	Rupert H. Bramblett, Cumming	L. Austin Flint, Canton	1981
10	M. A. Hubert, Athens	Wm. M. Headley, Milledgeville	1981
Bibb County Medical Society			
	Beverly B. Sanders, Macon	Rodney M. Browne, Macon	1981
Cobb County Medical Society			
	Charles R. Underwood, Marietta	Dan B. Stephens, Marietta	1981
DeKalb Medical Society			
	John P. Heard, Decatur	Roy W. Vandiver, Decatur	1981
Dougherty County Medical Society			
	J. Dan Bateman, Albany	Frank F. Middleton, III, Albany	1983
Floyd-Polk-Chattooga Medical Society			
	John I. Dickinson, Rome	Robert A. Farrell, Rome	1981
Hall County Medical Society			
	Henry Jennings, Jr., Gainesville	John Reed, Gainesville	1983
Medical Association of Atlanta			
	William C. Collins, Atlanta	Bob G. Lanier, Atlanta	1983
	T. J. Anderson, Jr., Atlanta	W. Ben Spearman, Atlanta	1981
	J. Harold Harrison, Atlanta	William C. Waters, III, Atlanta	1982
Georgia Medical Society			
	Joe L. Nettles, Savannah	Clyde L. Olson, Savannah	1982
Muscogee County Medical Society			
	Jack A. Raines, Columbus	E. M. Molnar, Columbus	1983
Richmond County Medical Society			
	Ronald F. Galloway, Augusta	Luther M. Thomas, Augusta	1981

AMA Delegates and Alternate Delegates, January 1, 1981

Delegates	Term Ending	Alternate Delegates	Term Ending
C. Emory Bohler, Brooklet	12-31-81	Carson B. Burgstiner, Savannah	12-31-81
F. W. Dowda, Atlanta	12-31-81	Charles D. Hollis, Albany	12-31-81
Harrison L. Rogers, Jr., Atlanta	12-31-82	H. Hilt Hammett, Jr., LaGrange	12-31-82
J. Dan Bateman, Albany	12-31-82	W. W. Moore, Atlanta	12-31-82

Official Program

(All functions of the House of Delegates will be held in Callaway Gardens)

THURSDAY, MAY 7

4:00 to 7:00 Registration of Delegates and Other Session Attendees
Location: Foyer

7:00 General Session
Location: Willow & Magnolia Rooms
Presiding: H. Hilt Hammett, Jr., M.D., President
Opening Ceremonies
Report of the President of the Auxiliary to the Medical Association of Georgia, Mrs. Milton B.Satcher of Atlanta.
Presentation of Association Awards
Family Physician of the Year
Hardman Cup
Civic Endeavor Award
Distinguished Service Award
Announcements
Recess

8:00 to 10:00 House of Delegates, First Session
Location: Willow & Magnolia Rooms
Presiding: Jack F. Menendez, M.D., Speaker, and James A. Kaufmann, M.D., Vice Speaker
Presentation, Correction, and Adoption of the Minutes of the 1980 House of Delegates
Appointment of Convention Committees
Nominations for Association Officers and AMA Delegates
Reports of Officers and Committees
Introduction of New Business
Announcements
Recess

FRIDAY, MAY 8

7:30 Registration
Location: Foyer

9:00 Reference Committee Hearings
Peach I, Peach II, Roof Garden, Garden View, Willow I, Willow II

SATURDAY, MAY 9

8:30 Registration
Location: Foyer

10:00 House of Delegates, Second Session
Location: Willow & Magnolia Rooms

7:00 President's Reception

SUNDAY, MAY 10

7:00 Registration
Location: Foyer

7:00 to 9:00 Polls Open for Election of Association Officers and AMA Delegates
Location: Foyer

9:00 House of Delegates, Third and Final Session
Location: Willow & Peach Rooms
Presiding: Jack F. Menendez, M.D., Speaker, and James A. Kaufmann, M.D., Vice Speaker
Invocation
Reports of Reference Committees
Announcements
Announcements of Election Results
Adjournment of House of Delegates

12:00 General Session, Final
Location: Willow & Peach Rooms
Presiding: H. Hilt Hammett, Jr., M.D., President
Installation of Officers
Adjournment of 127th Annual Session

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™



For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
 The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-CI™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-CI is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-CI is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.



F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-CL™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CL is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CL may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CL be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CL is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CL taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CL are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

MANUFACTURED & DISTRIBUTED BY

Boots Pharmaceuticals, Inc.

Shreveport, Louisiana 71106

Pioneers in Medicine For the Family

Auxiliary to the Medical Association of Georgia

56th Annual Meeting

May 7-10, 1981

Callaway Gardens,
Pine Mountain, Georgia

President's Invitation



THE AUXILIARY to the Medical Association of Georgia takes great pleasure in welcoming you to this, the 56th Annual Meeting. We are grateful for the opportunity each year to enjoy the fellowship and to exchange ideas with other Auxilians across the state. It is a time to summarize our year's activities and to share the experiences and the knowledge we have gained.

I sincerely invite you to attend the business and social events planned. We hope they will be rewarding and enjoyable.

Mrs. Milton B. Satcher
President
Auxiliary to MAG (A-MAG)

Welcome to Callaway Gardens



IT IS INDEED MY PLEASURE to welcome you all to the Annual Convention of the Auxiliary to the Medical Association of Georgia.

Muscogee County has not hosted a convention since 1966, and we are indeed proud to be able to welcome you to Callaway Gardens. We are here to help make your visit a good one, and if we can assist you in anyway, please ask us. We are being helped with this convention by DeKalb County and Dougherty County. All of us want this to be the best convention ever. So please come and join in the fun.

Again, we welcome you and hope you will call on us for anything you may need.

Mrs. James Sullivan
Convention Chairman
Auxiliary to MAG

Rules to Govern the Convention

1. The voting body of the convention shall consist of the members of the Executive Board of the Auxiliary to the Medical Association of Georgia and the duly accredited delegates from the county auxiliaries. No one is entitled to vote until registered.
2. To gain recognition, a delegate is requested to rise, address the chair, give her name and the name of her auxiliary.
3. No delegate shall speak more than twice on the same subject, and is limited to two minutes each time.
4. Badges must be worn by members of the voting body during all general sessions of the convention.
5. Delegates' privileges are not transferable.
6. All motions shall be presented in writing to the Recording Secretary. They shall be signed by persons making and seconding the motion.
7. All original motions on resolutions shall be made by submitting two copies, one to the Resolution Committee and one to the Recording Secretary.
8. All persons appearing on the program must be seated near the platform when the session opens.

Program

Convention Theme: Harmony of Health
1980-81 Theme: Activate Auxiliary Aims

THURSDAY, MAY 7, 1981

3:00 to 5:00 Registration and Information
Convention Lobby
Callaway Gardens

7:00 MAG General Session and House of Delegates Meeting
(All MAG and Auxiliary members and guests invited)
Callaway Ballroom
Presiding — H. Hilt Hammett, Jr., M.D., La-Grange, President, MAG
Report of Auxiliary to MAG — Mrs. Milton B. Satcher, Atlanta, President, A-MAG
Greetings and remarks from American Medical Association Auxiliary — Mrs. John L. Vaughn, Vancouver, WA, President
Greetings from Southern Medical Association Auxiliary — Mrs. Charles Prater, Jellico, TN, President

FRIDAY, MAY 8, 1981

8:00 to 5:00 Registration and Information
Convention Lobby
Hospitality *(Convention Lobby)*
Exhibits *(Dogwood Room)*

8:00 to 10:00 GaMPAC Breakfast
Callaway Ballroom

9:00 Reference Committee Hearing
Dogwood Room
Bylaws and Revisions
Mrs. James Manning, Chairman, Past President, A-MAG

10:00 Pre-Convention Executive Board Meeting
Dogwood Room
Presiding — Mrs. Milton B. Satcher, Atlanta, President, A-MAG
Invocation — Mrs. Lee Allen, Medicine and Religion Chairman, A-MAG
Pledge of Loyalty and Collect — Mrs. Perry M. White, Atlanta, President-Elect, A-MAG
Business Session

12:00 Luncheon
(Delegates, Board members, and guests)
Sweetbay Room
Presiding — Mrs. Milton B. Satcher, Atlanta, President, A-MAG
Speaker — Virginia Trotter, Ph.D., Athens, Vice President, University of Georgia

1:30 Auxiliary General Meeting
Dogwood Room
Call to Order — Mrs. Milton B. Satcher, Atlanta, President, Auxiliary to MAG
Highlights — Presentation of Colors
Presentation of Presidents
Invocation
Pledge of Allegiance and Collect
Address of Welcome — Mrs. William Wolff, President, Auxiliary to the Muscogee County Medical Society
Response to Welcome — Mrs. Kenneth Hoose, President, Auxiliary to the DeKalb County Medical Society
Presentation of Convention Plans — Mrs. James Sullivan, Past President, Muscogee County Medical Auxiliary, Convention Chairman, A-MAG
Introduction of Pages for the Day
Greeting from MAG — H. Hilt Hammett, Jr., M.D., President, MAG
Report of the Advisory Committee to the Auxiliary — Milton B. Satcher, M.D., Chairman
Introduction of Past Presidents — Mrs. Russell Andrews, Rome, Past President 1978-79, A-MAG
Introduction of Special Guests — Mrs. Thomas Marks, Atlanta, Third Vice President, A-MAG
Address — Mrs. John L. Vaughn, Vancouver, WA, President, American Medical Association Auxiliary
Greetings from Auxiliary to Southern Medical Association — Mrs. Charles Prater, Jellico, TN, President
Business Session
(All reports limited to 2 minutes)
Convention Rules of Order — Mrs. Shelley Davis, Atlanta, Parliamentarian, A-MAG
Roll Call — Mrs. Sammie Dixon, Tifton, Recording Secretary, A-MAG
Minutes — Mrs. Sammie Dixon, Tifton, Recording Secretary
Treasurer's Report — Mrs. Jack Smith, St. Simons Island, Treasurer, A-MAG
President's Report — Mrs. Milton B. Satcher, Atlanta, President, A-MAG
President-Elect's Report — Mrs. Perry M. White, Atlanta, President-Elect, A-MAG
Addendum Reports — State Officers and Chairman (complete reports are published in Annual Report, MAY issue of *Pulse Line*)

Recommendation from the Executive Board — MRS. SAMMIE DIXON, Tifton, Recording Secretary, A-MAG
Report of the Revisions Committee — MRS. JAMES MANNING, MARIETTA, Revisions Chairman, A-MAG
Report of the Budget And Finance Committee — 1981-1982 Budget Chairman
Report of the Credentials Committee — MRS. JAMES SULLIVAN, Convention Chairman
Announcements

4:30 Recess of Session

5:00 Fun Run — Shape Up for Life — Benefit AMA-ERF, William R. Dancy, M.D., Student Loan Fund
(All MAG and Auxiliary members and guests invited)

7:30 Auxiliary to MAG President's Buffet
Gardens Restaurant
Auxiliary Board Members, Advisory Board, and Guests Invited Honoring 1980-1981 Executive Board

9:00 Entertainment
Gardens Restaurant
(All Auxiliary and MAG members invited

SATURDAY, MAY 9, 1981

8:30 to 12:30 Registration and Information
Convention Lobby
Hospitality and Exhibits

9:00 Call to Order
Dogwood Room
Presiding — MRS. MILTON B. SATCHER, Atlanta, President, A-MAG
Memorial Service — MRS. WILLIAM BENSON, Marietta, Chairman, A-MAG
Introduction of Pages for the Day
Announcements
Business Session
Minutes — MRS. SAMMIE DIXON, Tifton, Recording Secretary, A-MAG
Report of Revisions Committee — MRS. JAMES MANNING, Marietta, Revisions Chairman, A-MAG
Report of Budget and Finance Committee
Report of the Resolutions Committee
Report of the Credentials Committee
Report of the Awards Committee — Introduction by MRS. EMMERICH VON HAAM, JR., Atlanta, Corresponding Secretary, A-MAG
Achievement — MRS. JAMES MORGAN, Atlanta, Chairman
AMA-ERF — MRS. ARLIE MANSBERGER, Augusta, Chairman
James N. Brawner, M.D., Certificate of Excellence — MRS. MICHEL GLUCKSMAN, St. Simons Island, Chairman
Doctor's Day — MRS. ROBERT FINE, Atlanta, Chairman
Membership — MRS. GEORGE JONES, Atlanta, 1st Vice President
Safety — MRS. MORTON BOYETTE, Albany, Chairman
Scrapbook — MRS. GRAY APPLETON, Savannah, Chairman
Report of the 1981-82 Nominating Committee — MRS. MICHEL GLUCKSMAN, Past President, Chairman, St. Simons Island
Election of Officers
Installation of Officers
Presentation of President's Pin and Gavel — MRS. MILTON B. SATCHER, Retiring President, A-MAG
Inaugural Address and Announcements of 1981-82 chairmanships — MRS. PERRY M. WHITE, President, Atlanta, A-MAG
Presentation of Past President's Pin — MRS. MICHEL GLUCKSMAN, Past President, St. Simons Island
Announcements

12:00 Adjournment

12:30 Post Convention Executive Board Meeting Luncheon Presiding — MRS. PERRY M. WHITE, Atlanta, President, A-MAG
Sweetbay Room
Past President's Lunceon
Presiding — MRS. MICHEL GLUCKSMAN, St. Simons Island, Past President
Oglethorpe Room
Dutch Luncheon
The Plantation Room
The Country Kitchen
The Vineyard Green Lounge
(All Auxiliary Members and Guests)

3:30 Adjournment

Free Time
Tennis, horseback riding, fishing, golf, swimming, skeet and trap shooting, gardens tour, train rides, riverboat rides, bicycling, miniature golf, visiting with friends.
Visit historic Columbus with its Columbus Square, Peachtree Mall, Cross Country Plaza, and antique stores. Browse through Hamilton antique and gift shops, the West Point Pepperell Mill store, and design galleries near Hamilton.

6:30 to 8:30 MAG President's Reception
H. HILT HAMMETT, JR., MD, LaGrange, Retiring President, MAG

AUXILIARY TO THE MEDICAL ASSOCIATION OF GEORGIA

State Officers — 1980-81

President — **Mrs. Milton B. Satcher (Ann)**
1171 West Paces Ferry Road, N.W., Atlanta 30327
(Medical Association of Atlanta) (402) 266-8361

President-Elect — **Mrs. Perry M. White (Katherine)**
1547 Cave Road, N.W., Atlanta 30327
(Medical Association of Georgia) (404) 233-2251

First Vice President — **Mrs. George R. Jones (Judy)**
1491 Council Bluff Drive, N.E., Atlanta 30345
(DeKalb) (404) 636-9565

Second Vice President — **Mrs. David C. Thibodeaux (Barbara)**
588 Heyward Circle, N.W., Marietta 30064
(Cobb) (404) 422-9233

Third Vice President — **Mrs. Thomas W. Marks (Mary Ann)**
1011 West Paces Ferry Road N.W., Atlanta 30327
(Medical Association of Atlanta) (404) 261-5994

Area Vice Presidents
North — **Mrs. William H. Christian (Jane)**
106 Oak Creek Circle, Toccoa 30577
(Stephens-Rabun) (404) 886-4167

Middle — **Mrs. William E. McDavid, Jr. (Donnie)**
18 Inman Circle, Atlanta 30300
(Clayton-Fayette) (404) 875-2030

South — **Mrs. Robert H. Carter (Sandee)**
210 Wheeler Street, Savanah 31405
(Georgia Medical) (912) 355-2700

Recording Secretary — **Mrs. Sammie D. Dixon (Latrell)**
Route 4, Box 543-J, Tifton 31794
(Tift) (912) 386-1998

Treasurer — **Mrs. W. Jack Smith (Eldred)**
726 Oglethorpe Avenue, St. Simons Island 31522
(Glynn) (912) 638-7819

Corresponding Secretary — **Mrs. Emmerich Von Haam, Jr. (Julia)**
3888 Fairfax Court, N.W., Atlanta 30339
(Medical Association of Atlanta) (404) 435-4635

Historian — **Mrs. Brit B. Gay (Evelyn)**
911 Vistavia Circle, Decatur 30033
(Medical Association of Atlanta) (404) 636-3976

Parliamentarian — **Mrs. Shelley C. Davis (Ethel)**
1259 Peachtee Battle Avenue, N.W., Atlanta 30327
(Medical Association of Atlanta) (404) 355-0007

American Medical Association Auxiliary 1980-1981

President — **Mrs. John F. Vaughan (Mary Ellen)**
(home) 604 Rhododendron Drive, Vancouver, Washington 98661
(206) 694-6012
(AMAA office) 535 North Dearborn Street, Chicago, Illinois 60610
(312) 751-6166

First Vice President — **Mrs. John G. Bates (Glenda)**
Box 329, Cotton Hill Road, Cuthbert, Georgia 31740
(Randolph-Stewart-Terrell) (912) 732-3050

Advisory Committee From the Medical Association of Georgia 1980-81

Chairman — **Milton B. Satcher, M.D.** — 2788 Bayard Road, East Point, Georgia 30344

Russell E. Andrews, M.D. — 316 West 10th Street, Rome, Georgia 30161

Earnest C. Atkins, M.D. — 2910 N. Druid Hills Road, Atlanta, Georgia 30329

Michel A. Glucksman, M.D. — 2705 Wildwood Drive, Brunswick, Georgia 31520

H. Hilt Hammett, Jr., M.D. — Hammett Building, LaGrange, Georgia 30240

Arlie R. Mansberger, M.D. — Medical College of Georgia, Augusta, Georgia 30912

David L. Morgan, M.D. — 1901 Century Boulevard, N.E., Atlanta, Georgia 30345

Perry M. White, M.D. — Baptist Professional Building East, Atlanta, Georgia 30312

Woman's Auxiliary to Southern Medical Association

Councilor — **Mrs. Russell E. Andrews, Jr. (Betty)**
Route 8, Kingston Road, Rome 30161
(Floyd-Polk-Chattooga) (404) 291-8335

Vice Councilor — **Mrs. Michel A. Glucksman (Irene)**
1502 Wood Avenue, St. Simons Island 31522
(Glynn) (912) 638-9207

1980-1981 State Committee Chairmen

Achievement Awards — **Mrs. James W. Morgan (Joyce)**
3352 Kilby Place, N.W., Atlanta 30327
(Medical Association of Atlanta) (404) 237-6588

Allied Health Careers — **Mrs. David L. Morgan (Mary)**
2295 Sagamore Hills Drive, Decatur 30033
(Dekalb) (404) 636-3351
Mrs. C. A. N. Rankine (Fran)
375 Brentwood Drive, N.E., Atlanta 30305
(Medical Association of Atlanta) (404) 237-5861

AMA-ERF (American Medical Association-Education and Research Foundation) — **Mrs. Arlie R. Mansberger (Ellen)**
3128 Walton Way Extension, Augusta 30909
(Richmond) (404) 738-3471

Archives — **Mrs. Russell B. Smiley, Jr. (Jean)**
3728 Cloudland Drive, N.W., Atlanta 30327
(Medical Association of Atlanta) (404) 233-1470

James M. Brawner, Sr., M.D. Certificates of Excellence — **Mrs. Michael A. Glucksman (Irene)**
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(Glynn) (912) 638-9207

Budget and Finance — **Mrs. Maurice E. Patton (Louise)**
822 Windsor Court, Augusta 30909
(Richmond) (404) 738-2342

Communications — **Mrs. Henry D. Meaders (Bebe)**
244 Seminole Drive, N.E., Marietta 30060
(Cobb) (404) 428-7224

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2025 Breckenridge Drive, N.E., Atlanta 30345
(Dekalb) (404) 325-0496

Editorial
Annual Report — **Mrs. Brit B. Gay (Evelyn)**
911 Vistavia Circle, Decatur 30033
(Medical Association of Atlanta) (404) 636-3976

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2197 Kodiak Drive, N.E., Atlanta 30345
(Medical Association of Atlanta) (404) 633-7982

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911 Vistavia Circle, Decatur 30033
(Medical Association of Atlanta) (404) 636-3976
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1772 Tamworth Court, Dunwoody 30338
(Dekalb) (404) 394-2437

State Directory — **Mrs. Harry B. O'Rear (Charlotte)**
3069 Hillsdale Drive, Augusta 30909
(Richmond) (404) 733-8087

GaMPAC — **Mrs. James C. Joiner (Lasa)**
1848 Breckenridge, N.E., Atlanta 30345
(Dekalb) (404) 633-9759

Health Education — **Mrs. Robley D. Smith (Ann)**
P.O. Box 788, Tifton 31794
(Tift) (912) 382-2743
Mrs. Carlton B. Hudson (June)
15 Woodview Drive, Cartersville 30120
(Bartow) (404) 382-7664

Impaired Physicians — **Mrs. James L. Clements (Margaret)**
4055 Randall Mill Road, N.W., Atlanta 30327
(Medical Association of Atlanta) (404) 261-7693

International Health — **Mrs. Charles M. Ward (Mary)**
Route 4, Box 10-56, Dawson 31742
(Randolph-Stewart-Terrell) (912) 995-2521

Legislation — **Mrs. Thomas W. Marks (Mary Ann)**
1011 West Paces Ferry Road, N.W., Atlanta 30327
(Medical Association of Atlanta) (404) 261-5994

Long-Range Planning — **Mrs. John G. Bates (Glenda)**
Box 329, Cotton Hill Road, Cuthbert 31740
(Randolph-Stewart-Terrell) (912) 732-3050

Medicine and Religion — **Mrs. Lee T. Allen (Betsy)**
2119 Gunstock Drive, Stone Mountain 30008
(Dekalb) (404) 934-6891

Membership — **Mrs. George R. Jones (Judy)**
1491 Council Bluff Drive, N.E., Atlanta 30345
(Dekalb) (404) 636-9565

Memorial Service — **Mrs. William H. Benson (Peggy)**
1099 Burnt Hickory Road, N.W., Marietta 30064
(Cobb) (404) 458-1664

Mental Health — **Mrs. Charles B. Thomas (Pearline)**
335 West Lake Drive, Athens 30606
(Crawford W. Long) (404) 549-5150
Mrs. Robert M. Boger (Jeanne)
1675 Alderbrook Road, N.E., Atlanta 30345
(Medical Association of Atlanta) (404) 636-1956

Philanthropy — **Mrs. C. James Roper (Helen)**
992 S. Main Street, Jasper 30143
(Cherokee-Pickens) (404) 692-2749

Program and Project Bank — **Mrs. David C. Thibodeaux (Barbara)**
588 Heyward Circle, N.W., Marietta 30064
(Cobb) (404) 422-9233

Research and Romance of Medicine — **Mrs. Neal F. Yeomans (Della)**
704 Magnolia Steet, Waycross 31501
(Ware) (912) 283-7263

Resident Physician Medical Student — Spouse Liaisons — **Mrs. Robert S. Hill (Jana)**
3329 Wheeler Road, Augusta 30909
(Richmond) (404) 738-4340
Mrs. C. Lyn Crooms (Jo Ann)
5410 Highpoint Road, N.E., Atlanta 30342
(Medical Association of Atlanta) (404) 255-0846

Revisions — **Mrs. James H. Manning (Pellie)**
643 Kennesaw Avenue, N.W., Marietta 30060
(Cobb) (404) 428-1564

Safety — **Mrs. D. Morton Boyette (Marvelyn)**
3309 Old Dawson Road, Albany 31707
(Dougherty) (912) 435-1839

Scrapbook Awards — **Mrs. B. Gray Appleton (Linda)**
1608 Walthour Road, Savannah 31410
(Georgia Medical) (912) 897-3159

Special Meetings

Summer Executive Board Meeting — **Mrs. William A. Wolff (Nancy)**
Callaway Gardens
Pine Mountain, Georgia
June 17-18, 1980
#1 Yosemite Court, Columbus 31907
(Muscogee) (912) 563-4042

Winter Executive Board Meeting — **Mrs. Loui G. Bayne (Joy)**
Terrace Garden Inn
Atlanta, Georgia
January 12-13, 1981
2279 Brookview Drive, N.W., Atlanta 30318
(Medical Association of Atlanta)
(404) 355-2711

Mrs. J. Hagan Baskin (Shirley)
2283 Sagamore Hills Drive, Decatur 30033
(Medical Association of Atlanta) (404) 636-5643

Annual Convention — **Mrs. James H. Sullivan (Bunny)**
Callaway Gardens
Pine Mountain, Georgia
May 8-10, 1981
2519 Graigston Drive, Columbus 31906
(Muscogee) (404) 323-3222

State Scrapbook — **Mrs. Joseph R. B. Hutchinson (Mickey)**
2197 Kodiak Drive, N.E., Atlanta 30345
(Medical Association of Atlanta) (404) 633-7982

William R. Dancy, M.D.
Student Loan Fund — **Mrs. William N. Agostas (Jo)**
2302 Overton Road, Augusta 30904
Term Expires 1981 (Richmond) (404) 736-3091

Mrs. Mark Brown (Julie)
809 Windsor Court, Augusta 30909
Term Expires 1983 (Richmond) (404) 736-0219

Mrs. Arlie R. Mansbeger (Ellen)
3128 Walton Way Extension,Augusta 30909
Term Expires 1982 (Richmond) (404) 738-3471

County Presidents and Presidents-Elect 1980-1981

Baldwin — President: **Mrs. Perry Moore (Stella)**
1620 N. Jefferson Street, Milledgeville 31061, (912) 452-4027

Bartow — President: **Mrs. Robert J. Moye (Suzanne)**
121 Plymouth Drive, Cartersville 30120, (404) 386-8106

Bibb — President: **Mrs. James R. Ashell (Alice)**
3093 Malvern Hill Drive, Macon 31204, (912) 742-6058
President-Elect: **Mrs. Luther Edward Brown (Nancy)**
1085 Georgia Avenue, Macon 31201, (912) 746-8297

Carroll-Haralson — President: **Mrs. John E. Godard (Bunny)**
258 Colonial Drive, Carrollton 30117, (404) 834-4088

Cherokee-Pickens — President: **Mrs. Robert T. Anderson (Joan)**
Route 4, Gail Avenue, Canton 30114, (404) 345-6765

Clayton-Fayette — President: **Mrs. Selwyn T. Hartley (Jackie)**
4614 Winthrop Drive, College Park 30337, (404) 768-1189
President-Elect: **Mrs. Feroze A. Yusufji (Parveen)**
6603 Morning Dove Place, Jonesboro 30236, (404) 471-1569

Cobb — President: **Mrs. George W. Galloway, Jr. (Jean)**
140 River Court Parkway, N.W., Atlanta 30328, (404) 393-3226
President-Elect: **Mrs. Joe M. Phillips, Jr. (Ann)**
899 Old Mountain Road, Marietta 30064, (404) 422-8731

Coffee — President: **Mrs. Ovida R. Vickers (Mary)**
Karen Lane, Douglas 31533, (912) 384-9181

Colquitt — President: **Mrs. Lanny R. Copeland (Martha)**
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"Challenge for the 80's — the Industrially Disabled"

The State Board of Workers' Compensation, in conjunction with the Southern Association of Workers' Compensation Administrators, is sponsoring a worldwide symposium to explore the area of rehabilitation. The symposium will be held at the Sheraton-Atlanta Hotel from Sunday, March 8, 1981, through Wednesday, March 11, 1981. While the exhibit hall will be open on Sunday, the official opening of the symposium will be on Monday, March 9, 1981, at 9:00 a.m. Patricia Neal will deliver the keynote address.

In addition to general presentations and panel discussions, including two titled "Pain Without Objective Findings" and "The Long-Term Consequences of Brain Injury — What Happens Next?," there will be daily workshop sessions. Among those offered are: "Survival Anxiety — the Post-Injury Syndrome," "The Industrial Low Back — Is There a Solution?," and "Rehabilitation Facilities: Do They Meet the Needs of the Industrially Disabled?"

The symposium will challenge each participant to become more knowledgeable and concerned with the important issues facing rehabilitation in the 80's. Anyone interested in sharing ideas and information regarding the special needs of the industrially disabled may complete the registration form below and mail it to the State Board of Workers' Compensation; Attention: Lynda Paul, 1800 Peachtree Street, N.W., Atlanta, Georgia 30367.

If you need further information, contact the Rehabilitation Section of the Board at 894-3768.

REGISTRATION FORM

"Challenge for the 80's — The Industrially Disabled"

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Representing _____

Address _____

☐ Enclosed is $250.00 registration fee (to be received by February 8, 1981)

☐ Enclosed is $300.00 registration fee (if received after February 8, 1981)

Checks should be made payable to: "Challenge for the 80's" — and mailed to: Georgia State Board of Workers' Compensation, Attention: Lynda Paul, 1800 Peachtree Street, N.W., Atlanta, Geargia 30367, U.S.A.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

Carcinoma of the Prostate: Is There a State of the Art?

DONALD J. McKENZIE, M.D., *Thomasville**

THE CLINICAL PICTURE of carcinoma of the prostate is most intriguing. Most practitioners have observed this neoplasm which can exist in an almost symbiotic relationship with the host or can progress relentlessly with apparently no host resistance and be totally unresponsive to all therapeutic modalities. The incidence of this tumor in the United States is approximately 69 per 100,000, with a 50% greater incidence occurring among black males. Both the occurrence and the black-white difference have increased significantly over the past 4 decades.

Significant advances have been made in the diagnosis and treatment of prostatic cancer in the last 10 years. Following the inception of the National Prostatic Cancer Project, scientific principles began to be uniformly applied to therapeutic and evaluation modalities on a nationwide basis. Multiple treatment protocols evaluating surgical approaches, single and multiple chemotherapeutic regimens, combined hormonal and chemotherapy approaches, external beam, and interstitial radiation are being studied. At this time, there is no one treatment modality, whether applied singly or as a combination approach, which is demonstrably superior to any other.

Two significant factors have been introduced into the scientific study of prostatic cancer. Histologic grading of the tumor varying from grade I to IV separately evaluates the architectural arrangement of glandular structures and employs a system of assessment of nuclear characteristics of individual tumor cells. Secondly, the development of a group of objective response criteria initially drafted and employed by the National Prostatic Cancer Project classifies categories from complete regression to objective progression. This assessment system has been of invaluable assistance in evaluating therapeutic regimens.

In the field of early diagnosis of prostatic malignancy, the alteration of biochemical constituents normally present in seminal fluid has been found to be an indicator of early neoplastic changes.

The identification of hormonally dependent tumors and the consequent value in outlining an appropriate therapeutic regimen would seem to signify the need for early identification of potential biologic activity.

In an overview of prostatic oncology, the significance of histologic grading and evaluation by objective criteria is most important. Early identification of potentially highly aggressive tumors and the application of scientific criteria in evaluating therapeutic modalities are certainly basic approaches to tumor therapy.

* Dr. McKenzie is a urologist. Address reprint requests to him at 935 South Broad St., Thomasville, GA 31792. Prepared at the request of the Georgia Division, American Cancer Society. Others wishing to contribute papers to this page are invited to send them to David B. Roberts, M.D., 2400 13th St., Columbus, GA 31906.



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Application of the Georgia Laws Regulating Physicians and Physician's Assistants to Activities Undertaken in Conjunction With Federally-Created Health Care Programs

ROBERT N. BERG, *Atlanta**

THE LAWS AND REGULATIONS passed and adopted by the U.S. Congress and by the various federal agencies are not always mutually exclusive of the statutes and regulations adopted by the various state legislatures and administrative agencies. Accordingly, it is sometimes true that a particular act or activity may be regulated by both the federal laws and the laws of a particular state. In most cases, this dual regulation is not a problem, in that the federal and state laws can both be satisfied by the same activity. As one example, the laws in a particular state dealing with air pollution may be more stringent than the standards imposed under federal law, but this is not an irreconcilable conflict, in that satisfying the state law will by definition also satisfy the more lenient federal law.

In some cases, however, state and federal laws are directly at odds, such that an act or activity which satisfies the requirements of the federal law will at the same time violate the provisions of the state law, or vice versa. In these cases, interesting legal questions are presented, such as: whether the federal law is "supreme" to the state law or whether the state has the right to regulate the activity? Is a state court the proper forum for resolving conflicts between federal and state laws?

This conflict between federal and state law is exemplified by a recent Georgia case[1] involving the regulation of physicians and physician's assistants practicing within the State of Georgia.

In 1976, the National Health Service Corps (NHSC), at the request of the Brooks County Hospital Authority, assigned Dr. Norris S. Lewis to provide medical services in Quitman, Georgia. The NHSC was established in 1972 as a part of the U.S. Public Health Service[2] to ensure the availability of physicians and other health professionals in certain "health manpower shortage areas" throughout the United States. In accordance with the NHSC statute and regulations, a list of shortage areas was published in the Federal Register. From time to time thereafter, any public or non-profit private organization located in one of these shortage areas (or having a demonstrated interest in such an area) could apply for the assignment of NHSC personnel.

In 1977, the Brooks County Hospital Authority requested that the NHSC assign a second physician to assist Dr. Lewis. Unable to do so at that time, the NHSC

* Prepared at the request of the Medical Association of Georgia. Mr. Berg is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

instead assigned a physician's assistant, Alan Armstrong, to assist Dr. Lewis. Mr. Armstrong was certified by the State of New York to practice as a physician's assistant, but was not so certified by the State of Georgia. Nevertheless, Mr. Armstrong began working for Dr. Lewis, since the policy of the NHSC was that physician's assistants did not have to be licensed in each state in which they were to serve.

On Sept. 28, 1978, Dr. Lewis was notified by the Georgia Composite State Board of Medical Examiners (the "Board") that a hearing would be held in order to determine whether disciplinary actions should be taken against him for permitting an unlicensed individual, Mr. Armstrong, to practice medicine in violation of Georgia law. Thereafter, on Nov. 14, 1978, a hearing was held, at which time Dr. Lewis was found by the hearing officer to have violated Georgia law by allowing Mr. Armstrong to write prescriptions without his co-signature and by knowingly aiding, assisting, and advising him to practice medicine contrary to Georgia law. The Board gave Dr. Lewis a 6-month probated suspension of his license, the probation being conditioned upon his compliance with all provisions of Georgia law relating to the practice of medicine.

Where federal and state laws conflict on a particular issue, is the federal law supreme to the state law? Is a state or county the proper forum for resolving such conflicts?

Dr. Lewis then appealed the Board's decision in the Superior Court of Fulton County (the "State Court") on the grounds that the "Supremacy Clause" of the U.S. Constitution[3] mandated that the objectives of the federally-enacted NHSC statute override the conflicting provisions of the Georgia law regulating physicians and physician's assistants.

In addition to Dr. Lewis' action in State Court, the U.S. government brought an action in the U.S. District Court in Atlanta (the "Federal Court"), seeking a permanent injunction prohibiting the Board from imposing any sanction on Dr. Lewis, and also seeking a declaratory judgment which would declare the NHSC's rights regarding the assignment and licensing of its personnel in Georgia. The basis for this suit was also that the federally-created NHSC program, in effect, was supreme to any state regulation of physicians and physician's assistants to the extent that the NHSC and state statutes were in conflict. The Board opposed this argument on the basis of the "abstention doctrine" — that the Federal Court should abstain from making any decision, in that the same issues would be determined in Dr. Lewis' State Court proceeding.[4]

The Federal Court, in a decision reached on March 27, 1980, rejected the government's claim and denied its request for an injunction on the basis of the "abstention doctrine," holding that it would not enjoin the proceedings in the State Court. Of primary importance to the Court was the fact that the government's rights would be adequately protected, in that Dr. Lewis was represented by Justice Department attorneys in the State Court proceeding.

Secondly, while the Federal Court acknowledged the significant federal interest in the NHSC program, and also acknowledged that the requirement that physicians and other health care personnel assigned under that program must also meet the licensing criteria of the individual states could significantly impair that program, it was equally persuaded by the fact that the state had an even greater interest in assuring that its citizens were prescribed medications only by those licensed to do so. The Court also noted the strong general interest of the state in safeguarding the public health. As a result, the Court was compelled to stay its hand and abstain from enjoining the State Court proceeding or from determining the question of whether the federal or the state laws control, thereby deferring to the determination of the State Court.[5]

As stated by the Federal Court:

> "Thus, the Court feels compelled under its equitable powers . . . to abstain (from enjoining the State Court action) under the circumstances of this case: Dr. Lewis' appeal is pending in State Court, the Supremacy Clause has been raised as a defense in his behalf, the State Court is competent to vindicate the federal constitutional claim thereby eliminating any peril to the federal interest, and the state's substantial interest in safeguarding the health of its citizens is present. For the aforementioned reasons, the court abstains from enjoining the State Court proceedings. . . . "

The decision by the Federal Court to abstain from declaring the rights of the parties or enjoining the Board from disciplining Dr. Lewis or Mr. Armstrong should not be misinterpreted as a determination by the Federal Court that the Georgia laws regulating physicians and physician's assistants control over any conflicting provisions in the NHSC statute. Quite the contrary, it is clear under the Supremacy Clause of the U.S. Constitution that, to the extent that there is a conflict, the terms of the federal law control. In fact, on Oct. 7, 1980, the State Court issued an order reversing the initial suspension of Dr. Lewis' license by the Board on the grounds that there is a conflict between the State of Georgia's licensing requirements for federally-employed medical professionals and the statutory objectives of the NHSC statute.[6]

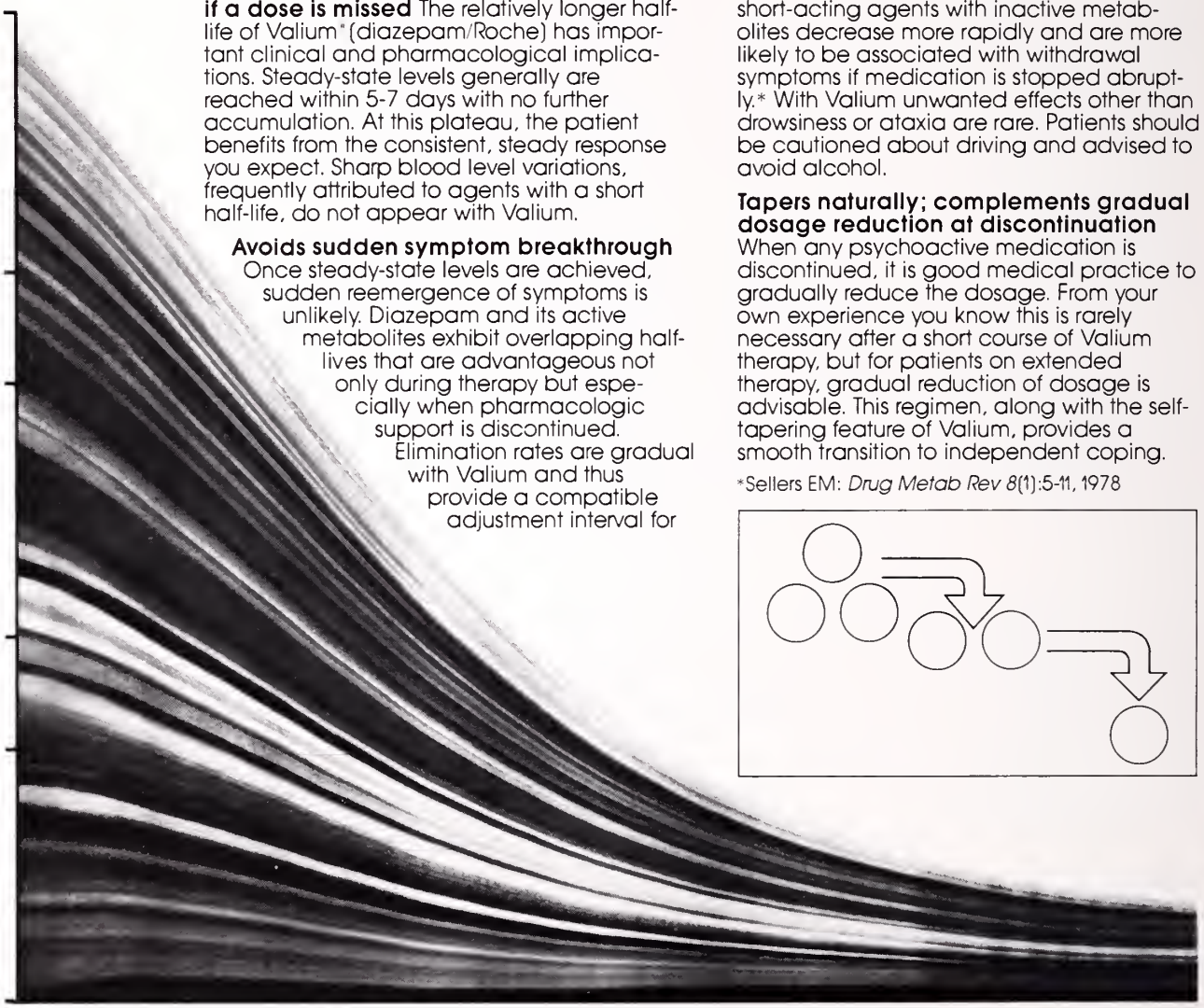
The importance of the decision by the Federal Court is more along procedural lines — that the Federal Court should not intervene into the midst of proceedings of the State (whether it be at the Board level or at the State Court level) when the rights of the plaintiff in the federal proceeding (the U.S. government, on behalf of the NHSC, in this case) will be adequately protected at the state level.

Notes

1. *U.S. v. Composite State Board of Medical Examiners of the State of Georgia*, 485 F.Supp. 495 (D.C.N.D. Ga. 1980).
2. The National Health Service Corps Act, 42 U.S.C. §254d *et seq.*
3. Article VI, Clause 2, which provides in pertinent part, that: "This Constitution, and the Laws of the United States, which shall be made in pursuance thereof; . . . shall be the Supreme Laws of the Land; and the Judges in every State shall be bound thereby, anything in the Constitution or Laws of any State to the contrary notwithstanding.
4. See, e.g., *Younger v. Harris*, 401 U.S. 37 (1971).
5. The Court also noted that the abstention doctrine has been held to be inapplicable in cases where the plaintiff would suffer irreparable injury if the Federal Court did not intervene, and if the plaintiff did not have an adequate remedy at law in the State Courts. *Duke v. State of Texas*, 477 F.2d. 244 (5th Cir. 1973). However, the Court determined that these factors were not present in the case of Dr. Lewis.
6. The State Court also remanded the matter to the Board for a hearing to determine whether Dr. Lewis violated any laws of the State of Georgia which are not superseded by federal law.

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Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978

in the management of symptoms of anxiety

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diazepam/Roche

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effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page

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Valium®(IV)
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Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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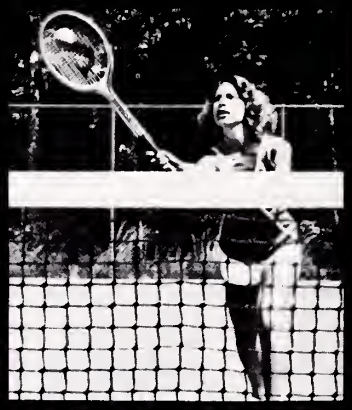
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This program offers a multi-dimensional treatment and rehabilitation program aimed at helping those afflicted with the disease of alcoholism or drug addiction. A variety of groups and activities are led by trained, experienced addiction counselors and therapists. Alcoholics Anonymous and Narcotics Anonymous are intrical parts of the program.

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This unique program offers a wide range of treatment modes and emphasis is placed on resolving the emotional, behavorial and educational difficulties involving this age group. A fully accredited school lets the young people continue their education during the inpatient process. Classes are small and credits earned at Ridgeview are transferred back to their schools.

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heart page
heart page
heart page

Diagnosis and Management of Ventricular Tachycardia Due to Ischemic Heart Disease

R. BRUCE LOGUE, M.D., *Atlanta**

ISCHEMIC HEART DISEASE is frequently associated with ventricular extrasystoles and ventricular tachycardia. Sympathetic stimulation by exercise or anxiety may trigger arrhythmia. Salvos of self-limiting ventricular tachycardia are usual when ventriculography is carried out. Tachyarrhythmia is common during ischemic episodes and particularly during the early hours of infarction, where the incidence of ventricular tachycardia is 1-5% and ventricular fibrillation 10%. One of the main predictors of long-term survival after myocardial infarction is whether there is pump dysfunction with susceptibility to ventricular fibrillation. Changing ischemia is a common subset of arrhythmia and may be induced by coronary spasm, platelet fibrin thrombi, or increased oxygen demand due to increase of the product of the systolic pressure and pulse rate. Ventricular tachycardia may interrupt complete heart block or occur with sinus bradycardia or tachycardia. The conventional R/T phenomenon may precipitate ventricular tachycardia, but as often as not the rhythm follows late extrasystoles and may occur after a normally timed P producing a fusion beat. Multiple causes of a prolonged QT interval, including antiarrhythmic drugs, predispose to ventricular tachycardia. Recurrent and refractory episodes of ventricular tachycardia following myocardial infarction suggest the possibility of ventricular aneurysm.

There are daily disputes in coronary care and intensive care units about whether ventricular tachycardia or supraventricular tachycardia with aberrant conduction is present. The differentiation between the two is important, since each calls for different treatment. Lidocaine, the most widely used drug for ventricular tachycardia, given to atrial flutter with 2:1 block may rarely result in 1:1 AV conduction, ventricular tachycardia, and fibrillation. It is not uncommon for atrial flutter with 2:1 block to occur within the first few days after bypass surgery. A rate of 150 is a strong clue to atrial flutter as against ventricular tachycardia.

Clues to ventricular tachycardia are as follows:[1]

(1) Heart rate 140-220, regular rhythm
(2) A-V dissociation, P waves visible in 20% in lead V1 at double standard may be detected by esophageal tracing
(3) QRS greater than 0.14 second in duration

* Dr. Logue is Director, Carlyle Fraser Heart Center, Crawford W. Long Division of Emory University. Address reprint requests to him at the Department of Cardiology, Crawford W. Long Memorial Hospital, 25 Prescott, NE, Atlanta 30308. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Miltiadis Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

(4) Left axis deviation
(5) Similar initial 0.04 of preceding premature beats to those with tachycardia
(6) Q waves at V1 or V6
(7) R/S at V1 and r/S at V6, rsR′ with initial R taller than R′ at V1
(8) Concordant precordial leads, upright or inverted complexes across the whole precordium
(9) Irregular occurring cannon waves in jugular venous pulse
(10) Multiple heart sounds with varying intensity of first heart sounds, wide splitting of first and second sounds

Clues that the rhythm is not ventricular tachycardia but rather supraventricular tachyarrhythmia with aberration include:[2]

(1) Heart rate greater than 240
(2) QRS 0.10-0.14
(3) No dissociation between atrial and ventricular complexes
(4) Preceding or following premature beats that are clearly of atrial origin
(5) Right bundle branch block pattern at V1 with R′ taller than R
(6) vsR, rsR′, qR or R at V1; Rs, qRs, rS at V6
(7) Irregular rates of 250-300 suggest atrial fibrillation with accelerated conduction through bypass tracts
(8) Slowing with carotid massage indicating presence of clear sawtooth baseline due to flutter or irregular wavy complexes of atrial fibrillation. Paroxysmal atrial tachycardia usually has a rate of 160-220 and may respond to measures of vagal stimulation including Tensilon or neosynephrine. None of the criteria used for differentiation are perfect.

Treatment of Ventricular Tachycardia

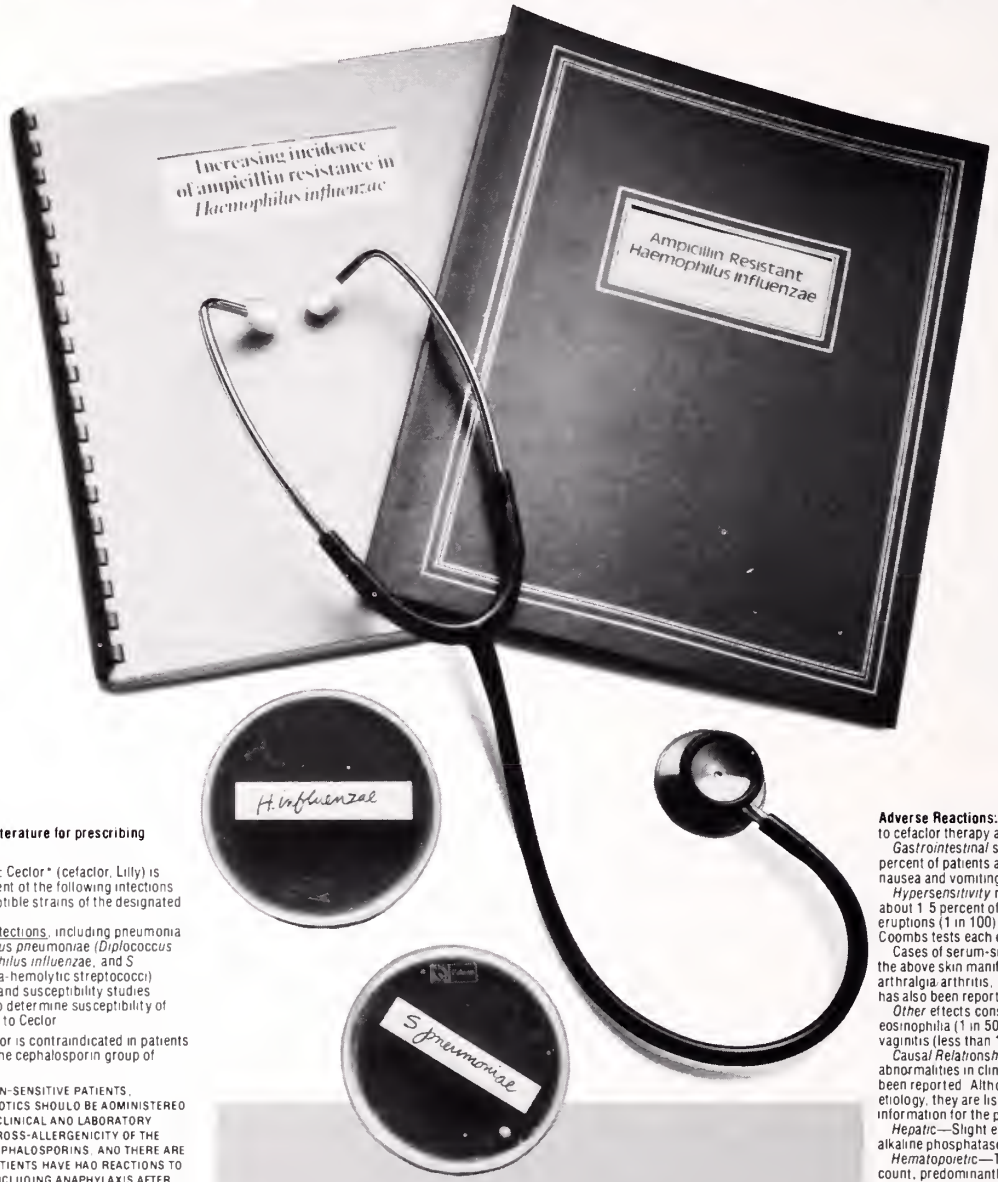
When persistent pain, pulmonary edema, or hypertension is present, immediate "DC" countershock using Valium should be carried out. On occasion, 400 watt seconds has been ineffective in the presence of hypotension, but 1 mg. neosynephrine may improve coronary filling pressure with prompt conversion of the rhythm. The conventional treatment is intravenous (IV lidocaine given in a bolus of 75-100 mg., followed by constant IV drip of 2-4 mg., with an additional booster dose of 50 mgs. after 3 minutes if the arrhythmia persists. In one series, lidocaine was ineffective in obliterating PVC's in the first hour of infarction in approximately 2/3 of the patients.[3] A dose of 300 mg. of lidocaine intramuscularly did not prevent primary ventricular fibrillation but continuous IV lidocaine prevented the arrhythmia.[4] Procainamide 100 mgs. intravenously every 3 to 5 minutes for a total of 500-600 mgs. may revert the rhythm or it may be necessary to give 100 mgs. every 5 minutes until a total of 1 gram is given. If the rhythm reverts or hypotension occurs, further intravenous doses should not be given. Small doses of neosynephrine, such as 0.5 mg. intravenously, may promptly counteract hypotension. If one cannot be certain that the rhythm is ventricular tachycardia, it is preferable to use procainamide initially, since the rhythm may be atrial flutter. Procainamide may terminate either tachyarrhythmia or at least increase AV block so that atrial flutter may be readily identified in Lead V1 taken at double standard. Inderal given 1 mg. intravenously every 3 minutes for a total dose of 5 mgs., followed by 20 mgs. orally every 4 hours, may be effective when combined with other antiarrhythmic therapy, even when congestive heart failure is present. Small doses of Inderal 10 mgs. three to four times daily are effective. At times, temporary pervenous pacing may terminate and prevent ventricular tachycardia in the presence of sinus bradycardia or complete heart block. The pacing rate required may vary from 90-120 beats per minute for prophylaxis. Digitalization may be helpful in preventing recurrent arrhythmia when congestive heart failure is present, with due care to avoid toxicity. When toxicity is suspected as a cause of ventricular tachycardia, one may use 40 mEq. KCl in 500 cc. 5% glucose solution IV, Dilantin 300-500

mg. given slowly intravenously over a period of 60 minutes, magnesium sulfate 20 cc's of 10% solution intravenously or Inderal. Temporary pacing of the ventricle is occasionally required. In the many situations in which QT prolongation is associated with "torsade de pointes" ventricular tachycardia, Inderal, Dilantin, Isuprel, or pervenous pacing is effective. Prophylactically, Quinidine Sulfate .2-.4 gm. every 4 hours is useful, as is Norpace 100-200 mgs. four times daily, although ventricular tachycardia has been induced with the latter drug. All of the drugs currently used have some toxic effect and none are totally effective. Combination drug therapy is commonly required. Current studies using electrical stimulation of pacing sites followed by drug therapy suggest that larger doses of antiarrhythmic drugs are required than have customarily been used, but it should be realized that good clinical judgment is required with larger doses. New drugs that have demonstrated effectiveness is prevention of ventricular tachycardia are Amiodarone, Verapamil, Mexitelene, Tocainide, Encainide, Lorcainide, and Aprenidine,[5] but all remain in the experimental stage. Amiodarone has given best results (70%) and can be given in a single dose, but it has significant toxic effects.[6, 7] Where there is refractory and recurrent ventricular tachycardia following myocardial infarction, one should suspect ventricular aneurysm, which may be identified by three-dimensional echo, myocardial scan, or by angiography. If drug therapy is ineffective, surgery should be considered. Resection of ventricular aneurysm has not been regularly effective in preventing ventricular tachycardia, but recent experience with endocardial mapping followed by resection of points of origin of the arrhythmia have given improved results.[8] In rare instances, when drug therapy is ineffective and surgery not feasible, the induction of hypothyroidism may reduce the recurrence of ventricular tachycardia.

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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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cefaclor
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Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict s and Fehling s solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia-arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGDT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* *

Note. Ceclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Health Maintenance Organizations — A Personal Perspective

THE RECENT aggressive promulgation of a Health Maintenance Organization (HMO), Americare, in the Cobb County area has stimulated conversation within the medical community of a fervor and vigor seldom seen recently regarding an issue directly affecting physicians. The issue has stimulated reactions ranging from credulous interest through studied appraisal and nagging worry to outright hostility. So a critical appraisal of the HMO concept is certainly in order.

One might first ask just what HMOs are all about and why they are here. The basic concept, if not birthed by, was certainly nurtured most effectively by private enterprise — the first being by the Kaiser Permanente Foundation in California. Next came the federal government with its own concept, and then the insurance industry, into what daily becomes a more competitive field. What one is basically talking about is another way of handling "prepaid health care" — first conceived and nurtured by Blue Cross and Blue Shield of Texas in the 1930s — and presently offered in many variations by federally sponsored groups, for-profit groups of private businessmen, and the insurance industry. The basic motivation, at least as stated by these groups, is that of quality control and cost control. The argument ranges, however, through such plausible and unplausible reasoning as improvement of physician working conditions, stabilization of physician income, improvement of patient access to the "health care system," accountability and preventive health measures through environmental control.

The recent establishment of a private HMO in Cobb County has generated much reaction within the local medical community. The author's observations may be applicable to other HMO areas in the state.

The next question to consider is whether or not this is a new concept in health care. Here one must realize that it is neither new nor floundering, particularly in our area. There are now three HMOs operating in the Atlanta metropolitan area, with a fourth sponsored by the Prudential Insurance Company, (PruCare), soon to open. Atlanta Blue Cross and Blue Shield and the Medical Association of Atlanta have studied the concept carefully for at least 3 years and will almost certainly make a major move into an operational HMO in the next few months.

HMO activity has been a matter of great concern to the Medical Association of Georgia (MAG) in the last several years. Statutes have been presented by various individuals to the Georgia General Assembly in the last 4 years dealing with the statutory regulations of HMOs. The MAG has also developed its own statute during

this period. A state law regarding HMOs has been passed, and the legal mechanisms for establishing one in the State of Georgia, not feasible 2 years ago, are now in place. We are not, then, talking about something which might come or could possibly be stopped. We are talking instead about something which is here and which can be expected to grow in some undefined manner within the next few years.

One then comes to the question of why all this has come about in the Atlanta metropolitan area. Results of many studies nationwide point to this area as one with rapid growth, past sluggish development of the HMO concept, and thus an ideal area for the development of an HMO. This area is "targeted high" by every group interested in establishing an HMO. These groups range from the federal government to the insurance industry to the private enterprise venture now being developed in the Marietta area.

Many questions have been bandied about in the local hospital corridors: Is an HMO really going to be developed in the Marietta area? Has the Prudential Insurance Company really made a commitment to develop a local HMO? Will Americare be organized and become operational? How much of my practice will be lost to the HMO if I do not join? What advantages are there for me, from the standpoint of practice growth, time off, and income, to join an HMO panel? Are the HMOs being developed in a sincere effort to improve quality and control costs or are they another means of making money at the expense of the doctors? Is there any way to stop them? Will the future see rapid erosion of fee-for-service private practice as we have known it and its replacement with an HMO? Will an HMO destroy the incentive of perfection of practice growth and quality as well as income production that the presently existing fee-for-service system provides? The answers are many and varied, ranging as widely as individual practices, personalities, and preferences range.

The overriding and haunting imponderable for me is the basic question of whether or not this method of providing health care will prove, in the long run, to be the dominant one. Is this the way we will practice medicine in the future, if we do, indeed, practice? Shakespeare wrote, "There is a tide in the affairs of men which taken at the flood leads on to fortune." And are we choosing whether or not to ride that flood into the future or "wipe out" on the beach? Is this a flood tide or a ripple? Perhaps obtaining answers to any of such questions is of little significance and pales alongside the basic threat of our letting divisiveness and petty disagreements develop among ourselves over differences of opinion relating to the HMO. Unsigned letters (as that from the "HMO Truth Squad") with unsubstantiated accusations and meanly veiled insinuations, lacking the courage of personal identification, have no place in the halls of reasonable debate. We remain free to choose whether or not we will participate in an HMO. Our longstanding basic mission is to provide the very best medical care to our patients at a fair and reasonable cost. Hopefully, the system and the individual who excel in the latter will prosper. Attention to the fringe issues and questions of this matter will do little good and stands to generate harm. Henry Thoreau knew this when he cautioned that, "There are thousands hacking at the branches of the tree of evil to one striking at the root."

There are those who say that our available options are to oppose the entire HMO concept, join and participate, or sit back and watch, taking no active part. Within an organization composed of persons as varied and individualistic as those in the Cobb County Medical Society, I would suggest that as a group action, none of these options are viable. Rather, our only course of action is to continue the pursuit of high quality and cost effective medical care, within or without an organizational structure (such as an HMO), with sure confidence that such conduct will prevail.

Charles R. Underwood, M.D.
Cobb County Medical Society
Marietta

Preventing Cardiovascular Disease

Approximately 30 years ago, the Georgia Affiliate of the American Heart Association was founded by a group of concerned persons including Bruce Logue, Sterling Claiborne, Carter Smith, Tom Ross, and Linwood Beck. I suppose they might now be feeling a little smug, but I doubt it. They have a right to, though, because since 1968, the age-adjusted mortality rates show that the incidence of coronary heart disease is down 25%, stroke is down 37%, hypertensive disease is down 53%, and rheumatic fever and rheumatic heart disease are down 38%. These are remarkable statistics. Someone is doing something right!

February is traditionally "Heart Month." We recognize it this year with a look backward, to see how far we have come in the prevention and treatment of cardiovascular disease and with a look forward to see how far we yet need to go.

The downward trend began in the mid-1960s when it became general knowledge that rheumatic fever could be prevented, that cigarettes and high cholesterol blood levels were closely associated with atherosclerotic coronary heart disease, that hypertension could be treated effectively, and that such treatment would lessen the incidence of stroke. This information was obtained from research sponsored by our Heart Associations and by others who were concerned with the rising incidence of death from heart attacks. The research continues. Slightly more than half of our citizens still die from cardiovascular diseases. There remains much yet to be learned.

As the research efforts continue, our Heart Association has the task of getting this new knowledge to the people who need it: health care workers, educators, and the citizens themselves. The "buzz" words for this effort are "health promotion" and "disease prevention," often abbreviated HP/DP (not to be confused with the physiologist's abbreviation $\Delta p/\Delta t$). As the decade of the 1980s begins, we read of new evidence in the Jan. 8, 1981, issue of the *New England Journal of Medicine* confirming that lowering dietary cholesterol and saturated fat will lower the risk of coronary death. We read of new militance against the use of tobacco as manifested by new legislation in many states and by the AMA commending the publishers of 50 American magazines that refuse to accept tobacco advertising. We see increasing zeal for identifying people with high blood pressure, getting them into treatment programs, and seeing that they comply with their regimens.

Sloth and gluttony are out; exercise and moderation are in. Unfortunately, they are "in" to a limited number of people. Physicians, both collectively through their organizations and individually by setting good examples, should participate in this effort to promote good health and prevent disease. The founders of the Georgia Affiliate of the American Heart Association, some of whom are still practicing, would surely support this movement in the decade ahead.

Nicholas E. Davies, M.D.
President, Georgia Affiliate of the American Heart Association
Atlanta



works well in your office...

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
- It is convenient to recommend without a prescription.

NEOSPORIN® Ointment—for the office, for the home.
(polymyxin B-bacitracin-neomycin)

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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You can expect rapid relief of a broad range of symptoms

With Limbitrol, patients often improve within a week. Not only is insomnia relieved, but you will often see early relief of agitation, psychic and somatic anxiety, anorexia and feelings of guilt or worthlessness. This early response encourages patients to stay in therapy.

You can minimize phenothiazine drawbacks

When you choose Limbitrol over a phenothiazine-containing product, you minimize the risk of tardive dyskinesia — now associated even with low dose, short-term phenothiazine therapy.[1,2] You also reduce the possibility of other extrapyramidal side effects, which occur in approximately 30% of patients receiving phenothiazines.[3-5] In contrast, the reported incidence of these disturbing reactions with Limbitrol or either of its components alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Poulson GW. *NY State J Med* 79:193-195, Feb 1979. **2.** Hollister LE. Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al*. New York, Oxford University Press, 1977, pp.134, 145. **3.** Domino EF. Antipsychotics phenothiazines, thioxanthenes, butyrophenones and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. **4.** Sovner R, DiMascio A. Extrapyramidal syndromes and other neurologic side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p.1021. **5.** Donlon PT, Stenson RL. *Dis Nerv Syst* 37: 629-635, Nov 1976.

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What better reason to choose Limbitrol for your patients with moderate depression and anxiety?

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



Efficacy without a phenothiazine

Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, pleose consult complete product informotion, o summory of which follows:

Indicotions: Relief of moderate to severe depressian assaciated with maderate ta severe anxiety

Contraindicated: Known hypersensitivity ta benzadiazepines or tricyclic antidepressants Da nat use with manaamine axidase (MAO) inhibitars ar within 14 days fallawing discantinuatian af MAO inhibitars since hyperpyretic crises, severe canvulsians and deaths have accurred with cancamitant use; then initiate cautiausly, gradually increasing dasage until aptimal respanse is achieved Cantraindicated during acute recavery phase fallawing myacardial infarctian

Wornings: Use with great care in patients with histary af urinary retentian ar angle-clasure glaucama Severe canstipatian may accur in patients taking tricyclic antidepressants and anticholinergic-type drugs Clasely supervise cardiavascular patients (Arrhythmias, sinus fachycardia and pralangatian af canductian time reparted with use af tricyclic antidepressants, especially high dases Myacardial infarctian and strake reparted with use af this class of drugs) Cautian patients abaut passible cambined effects with alcahal and ather CNS depressants and against hazardaus accupatians requiring complete mental alertness (e.g., aperating machinery, driving)

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychalagical dependence ta chlardiazepaxide have been reparted rarely, use cautian in administering Limbitral ta addictian-prane individuals ar thase wha might increase dasage, withdrawal symptams fallawing discantinuatian af either campanent alane have been reparted (nausea, headache and malaise tar amitriptyline, symptams [including canvulsians] similar ta thase af barbiturate withdrawal far chlardiazepaxide)

Precautions: Use with cautian in patients with a histary af seizures, in hyperthyraid patients ar thase an thyraid medicatian, and in patients with impaired renal ar hepatic functian. Because af the passibility af suicide in depressed patients, da nat permit easy access ta large quantities in these patients. Periadic liver functian tests and bload counts are recammended during pralanged treatment Amitriptyline campanent may black actian af guanethidine ar similar antihypertensives Cancamitant use with ather psychatrapic drugs has nat been evaluated sedative effects may be additive Discantinue several days before surgery Limit cancamitant administratian af ECT ta essential treatment See Warnings far precautians abaut pregnancy

Limbitral shauld nat be taken during the nursing periad Nat recammended in children under 12 In the elderly and debilitated, limit ta smallest effective dasage ta preclude ataxia, aversedatian, confusian ar anticholinergic effects

Adverse Reactions: Mast frequently reparted are thase assaciated with either campanent alane drawsiness, dry mauth, canstipatian, blurred visian, dizziness and bloating Less frequently accurring reactians include vivid dreams, impatence, tremar, canfusian and nasal congestian Many depressive symptams including anarexia, fatigue, weakness, restlessness and lethargy have been reparted as side effects af bath Limbitral and amitriptyline Granulacytapenia, jaundice and hepatic dysfunctian have been observed rarely

The fallawing list includes adverse reactians nat reparted with Limbitral but requiring consideratian because they have been reparted with ane ar bath campanents ar clasely related drugs

Cardiovascular Hypatensian, hypertensian, tachycardia, palpitations, myacardial infarctian, arrhythmias, heart black, strake

Psychiatric Eupharia, apprehensian, paar cancentratian, delusians, hallucinatians, hypamania and increased ar decreased libida

Neurologic Incaardinatian, ataxia, numbness, tingling and paresthesias at the extremities, extrapyramidal symptams, syncape, changes in EEG patterns

Anticholinergic Disturbance af accammadatian, paralytic ileus, urinary retentian, dilatatian af urinary tract

Allergic Skin rash, urticaria, phatasensitizatian, edema af face and tangue, pruritus

Hematologic Bane marraw depressian including agranulacytasis, easinaphilia, purpura, thrambacytapenia

Gastrointestinal Nausea, epigastric distress, vamiting, anarexia, stamatitis, peculiar taste, diarrhea, black tangue

Endocrine Testicular swelling and gynecamastia in the male, breast enlargement, galactarrhea and minar menstrual irregularities in the female and elevatian and lawering af bload sugar levels

Other Headache, weight gain ar lass, increased perspiratian, urinary frequency, mydriasis, jaundice, alopecia, paralid swelling

Overdosage: Immediately hospitalize patient suspected af having taken an averdose Treatment is symptamatic and supportive I V administratian af 1 ta 3 mg physastigmine salicylate has been reparted ta reverse the symptams af amitriptyline paisaning See complete praduct infarmatian far manitestatian and treatment

Dosage: Individualize according ta symptom severity and patient respanse Reduce ta smallest effective dasage when satisfactary respanse is abtained Larger partian af daily dase may be taken at bedtime Single h.s. dase may suffice far same patients Lower dosages are recammended far the elderly

Limbitral 10-25, initial dasage of three ta faur tablets daily in divided dases, increased up ta six tablets ar decreased ta twa tablets daily as required Limbitral 5-12.5, initial dasage af three ta faur tablets daily in divided dases, far patients who da nat talerate higher doses

How Supplied: White, film-coated tablets, each containing 10 mg chlardiazepaxide and 25 mg amitriptyline (as the hydrachlaride salt) and blue, film-coated tablets, each contoining 5 mg chlardiazepaxide and 12 5 mg amitriptyline (as the hydrachlaride salt) — bottles af 100 and 500, Tel-E-Dase® packages af 100, available in trays af 4 reverse-numbered boxes af 25, and in boxes containing 10 strips af 10, Prescriptian Paks af 50

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Your guide to patient management... when you decide medication is needed

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- ☐ Limbitrol 10-25 may be indicated for patients who talerate medicatian without undue side effects

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended
- ☐ Dasage may be increased ta six tablets or decreased to twa tablets daily as necessary
- ☐ Once a satisfactary respanse is obtained, patients should be cantinued on the smallest dase required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens mast suited for patients who tolerate medication withaut undue drowsiness
- ☐ Twa tablets ane hour before bedtime and one tablet midday may minimize daytime drawsiness and help relieve a comman target symptom — insomnia
- ☐ Entire dasage h.s. to take maximum advantage af the sedative effect

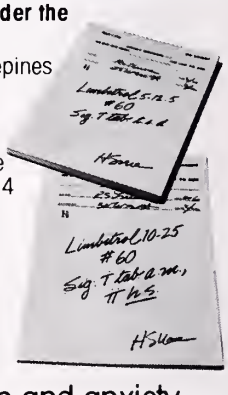
How to make each patient an informed patient

1. Discuss with patients the prabability that they will experience drawsiness, especially during the first week.
2. Reassure yaur patients that drawsiness is ane indicatian that the medicatian is warking and that it may help alleviate their insamnia.
3. Encaurage patients ta repart if drawsiness becames traublesame sa that, if necessary, dasage schedule can be adjusted.
4. Cautian patients about the combined effects with alcahal ar ather CNS depressants. Let them knaw that the additive effects may produce a harmful level af sedatian and CNS depressian.
5. Caution patients abaut activities requiring camplete mental alertness, such as aperating machinery ar driving a car.
6. Warn pregnant patients and patients af childbearing age that the safety af Limbitral in pregnancy has not yet been established.

Pleose see complete product disclosure for other pertinent informotion.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity ta benzodiazepines or tricyclic antidepressants.
2. Cancamitantly with an MAO inhibitor. To replace an MAO inhibitar with Limbitral, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



In moderate depression and anxiety

Limbitrol® IV

Relief without a phenothiazine

PEACHTREE & PARKWOOD MENTAL HEALTH CENTER AND HOSPITALS



A private, comprehensive mental health center designed and staffed to meet the individual needs of patients by provision of a therapeutic milieu and the following specialized treatment programs:

ADULT PSYCHIATRIC PROGRAM

A plan that focuses on the particular requirements of the patient is drawn up by his or her personal psychiatrist. It includes, in addition to the milieu approach, group, recreational, horticultural and occupational therapy.

CHILD SERVICES

All types of psychiatric and learning disorders are treated with a multi-modality approach at this in-patient unit for children under 13 years of age. Out-patient services and a day-care program are an integral part of this service. All needed schooling is available.

ADOLESCENT PSYCHIATRIC PROGRAM

Includes a state-accredited special education middle and high school for patients ranging in age from 13 to 19 years. Patients participate in a milieu incorporating community identification, frequent interaction with staff members and individual appointments with psychiatrists.

ALCOHOL AND DRUG REHABILITATION PROGRAM

A comprehensive, individualized program of detoxification and rehabilitation is offered the alcohol and drug patient. Each patient works with a therapeutic team in planning treatment, and emphasis is on long-term out-patient follow-up.

MEDICAL SERVICES

A full-time staff of Board certified internists is available to meet the medical needs of all patients.

COMPLETE LAB COVERAGE AND RADIOLOGY SERVICE

Includes EKG, EEG, Isotope and fluoroscopic X-ray studies within the facility.

ADDITIONAL PROGRAMS AND SERVICES INCLUDE A DAY HOSPITAL PROGRAM AND AN OCCUPATIONAL MENTAL HEALTH SERVICES DEPARTMENT.

The Peachtree and Parkwood facilities are located on six tree-covered acres near the intersection of Briarcliff and North Druid Hills Roads in Atlanta. Complete information on services and facilities may be obtained by writing or calling:

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Mental Health Center and Hospitals

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404/633-8431

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president's letter



No Security — Only Opportunity

IDEALS AND GOALS that create the solid foundation for accountability come from experience and activity — not from theory. I believe that in this life there is no security — only opportunity. The business of medicine provides us with the demanding opportunity that our system constantly seeks to develop effectiveness, confidence, and progressive productivity. Our opportunity is to accept the challenge of anticipating the needs of the marketplace and to achieve the maximum from the resources at our command.

The dominant problem in the health care of today is *cost*. The principal culprit in this cost is *utilization*. Our program and our opportunity to deal effectively in the productivity of health care *cost control* must be a participating interchange with other physicians, hospitals, business, labor, and government. This participation must be flexible, innovative, and accountable. It is our opportunity to project our strength in a sincere and positive manner.

It is my opinion and concern that failure to grasp our opportunities, and to protest *without* programs, can well be the epitaph of some of our idealisms.

Respectfully,

H. Hilt Hammett, Jr., M.D.

H. Hilt Hammett, Jr, M.D.
President, M.A.G.

the association
the association
the association

NEW MEMBERS

Barry, Richard E., Bibb—ACT—FP
Mercer University School of Medicine, Macon 31207

Booker, Daniel C., Jr., Ware—N-2—ORS/PDS
2002 Alice St., Waycross 31501

Ellis, Gary R., South Georgia—ACT—GS
P.O. Box 2313, Valdosta 31601

Grant, Jesse R., Jr., Bibb—N-2—FP
235 Medical Ct., Forsyth 31029

Jones, Thomas C., Bibb—N-2—END/IM
Medical Center Doctors Bldg., Ste. 560, Macon 31201

Lopez, Augusto A., Sumter—ACT-PTH
Americus-Sumter County Hospital, Americus 31709

Manning, George S., Muscogee—S—FP
Family Practice Clinic, Martin Army Hospital,
Ft. Benning 31905

McVey, Angela, Muscogee—S—OBG
P.O. Box 380, Ft. Benning 31905

Novey, Edward S., Crawford W. Long—N-2—N
1077 Baxter St., Athens 30606

Okehi, Obi C., Bibb—N-2—OBG
770 Pine St., Ste. 310, Macon 31201

Ondrejik, Diana, Dougherty—N-2—NEP
507 Third Ave., Albany 31701

Shessel, Fred S., Cobb—N-2—U
2550 Windy Hill Rd., Marietta 30062

Smith, Christopher C., MAA—I&R—GS
2218 Allaire Ln., NE, Atlanta 30345

Thomas, Bobby M., Crawford W. Long—N-2—R
1230 Baxter St., Athens 30613

Witrak, Bonnie J., MAA—I&R—R
80 Butler St., SE, Atlanta 30303

PERSONALS

First District

Savannah anesthesiologist, **F. Willson Daily, M.D.,** recently completed a Fellowship in obstetrical anesthesia at the North Carolina Baptist Hospital under the auspices of the Bowman-Gray School of Medicine, Winston-Salem, North Carolina.

John L. Dekle, Jr., M.D., and **Lawrence D. Odom, M.D.,** have associated their OB-GYN practices in Savannah.

Whitman Fraser, M.D., Hinesville, received the Hinesville Sertoma Club's "Service To Mankind" award Dec. 10, 1980. The Club chose Dr. Fraser to receive its highest annual award for his "devotion to the community and his untiring efforts as a fulltime physician."

Family physician, **James W. Fresh, M.D.,** has moved his practice from Millen to Sardis.

Wu Hon Jeng, M.D., Hinesville, was recently Board certified by the American College of Obstetrics and Gynecology.

Second District

The Georgia Academy of Family Physicians presented their Distinguished Service Award to **H. Gordon Davis, Jr., M.D.,** of Sylvester. Dr. Davis was recognized for his outstanding contribution to the health care of the citizens of Georgia.

The Phoebe Putney Hospital medical staff has elected its medical officers for 1981: **Thomas D. Johnson, M.D.,** is president; **William George, M.D.,** vice president; and **H. H. Parish, M.D.,** secretary. All three doctors are from Albany.

Third District

Dawson physician, **Walter Martin, M.D.,** retired from general practice on Dec. 1, 1980.

On Nov. 22, 1980, the Turner County Chamber of Commerce named Ashburn physician, **James Reynolds, M.D.,** Citizen of the Year.

Fourth District

Robert M. Fine, M.D., Decatur, was elected Chairman of the Section of Dermatology of the Southern Medical Association at its November, 1980, meeting in San Antonio, Texas.

LaMar S. McGinnis, M.D., Decatur, has been elected to a 3-year term on the American College of Surgeon's (ACS) Commission on Cancer. Dr. McGinnis will also serve on the ACS Committee on Field Liaison.

Stone Mountain physician, **Alan Jay Pomerance, M.D.,** was recently Board certified by the American Board of Obstetrics and Gynecology.

Fifth District

Edwin C. Evans, M.D., Atlanta, was installed as President-Elect of the Southern Medical Association at its 74th Annual Scientific Assembly in San Antonio.

Atlanta physician, **A. H. Letton, M.D.,** has been named to the editorial board of the *International Journal of Surgical Oncology*.

Edward M. Mason, M.D., of Atlanta, was recently elected President of the Anneewakee Medical Staff. Dr. Mason was also elected President of the Atlanta Unit of the American Cancer Society for 1980-81.

Lee R. Shelton, M.D., an Atlanta physician, is serving on President Ronald Reagan's transition health policy task force. The transition team is charged to "address the health challenges of the 80s with a view to making the finest health system in the world accessible to all without compulsory national health insurance being made part of the national agenda."

John Skandalakis, M.D., an Atlanta surgeon, was awarded the Medical Association of Atlanta's Aven Cup award for outstanding community service.

Sixth District

W. John O'Shaughnessey, M.D., Macon internist, has been elected President of MedCen Foundation, Inc. MedCen is a public, non-profit corporation established to accept tax deductible gifts on behalf of the Medical Center of Central Georgia.

Seventh District

William P. Downey, M.D., retired Jan. 1, 1981, after almost 14 years of service as the first plant physician for the Southwire Company in Tallapoosa. Prior to that, Dr. Downey had practiced privately for 20 years in Tallapoosa.

Marietta surgeon, **John M. Hodges, M.D.,** retired Jan. 1, 1981, after practicing for 32 years. Kennestone Hospital personnel, office staff, and family members honored Dr. Hodges with receptions for his contributions to the medical profession in Cobb County.

The Chattooga County Chamber of Commerce awarded the 1980 Community Service Award to **Herman Spivey, Jr., M.D.,** of Summerville. Dr. Spivey was recognized for his work in developing plans for the Northwest Georgia Primary Health Care Center which will open soon.

At a joint meeting of the Hamilton Memorial Hospital medical staff and the Whitfield-Murray County medical auxiliary, **Truman W. Whitfield, M.D.,** was honored for his 35 years of service to the people of Dalton and Whitfield County and for his service on the medical staff of Hamilton Memorial Hospital.

Eighth District

Waycross physician, **Donald James, M.D.,** has moved his OB/GYN practice to Monroe.

The American Board of Obstetrics and Gynecology recently certified Waycross physician, **John Malmborg, M.D.**

Ninth District

Quentin Randolph, M.D., of Winder, spoke to area nurses at the Winder-Barrow County Hospital on Nov. 11, 1980. His topic was the renal system.

Tenth District

The medical staff of the University Hospital in Augusta honored **J. Dewey Gray, M.D.,** for his years of service to the community. The J. Dewey Gray Lectureship was established and will provide for the medical specialists to visit the hospital and teach the medical staff and students.

Richmond District Health Director, **Maurice G. Patton, M.D.,** of Augusta, was named a Paul Harris Fellow at the December, 1980, meeting of the Augusta Rotary Club.

SOCIETIES

Approximately 1 year ago, on the recommendation of its Board of Trustees, the **Bibb County Medical Society** authorized the creation and funding of an Awards Committee. Its charge was to select on an intermittent basis recipients of two awards, one to be awarded to a physician and the other to a non-physician. The criteria are based on excellence in medicine and/or his or her activities in the areas of education, business, religion, and community service. Milford B. Hatcher, M.D., of Macon, was the first to receive the Outstanding Physician Award. Mr. Myer O. Signal, also of Macon, received the Outstanding Citizen Award. The awards were presented by the Society on Nov. 12, 1980. Officers for the Bibb County Medical Society were elected at their annual business meeting held Dec. 2, 1980. Alva L. Mayes, Jr., M.D., was elected president; Milton I. Johnson, Jr., M.D., president-elect; Rodney M. Browne, M.D., vice-president; Alex Mitchell, M.D., treasurer; and C. Emory Johnson, Jr., M.D., secretary. All officers live in Macon.

The joint meeting of the **DeKalb Medical Society** and its Auxiliary took place at the Capital City Club in Atlanta on Jan. 19, 1981. President Ernest C. Fokes, M.D., addressed the group. Roy W. Vandiver, M.D., Decatur, received the 1981 Julius McCurdy Citizenship Award for his leadership in developing a renewed interest in the medical aspects of sports in DeKalb County high schools and colleges.

At their November meeting the **Gordon County Medical Society** heard Harry E. Dawson, Jr., M.D. Dr. Dawson is a plastic surgeon practicing at the Harbin Clinic in Rome.

Gary Price, MAG's Associate Director of Legislative Activities, spoke to the November meeting of the **Ware County Medical Society.** He described legislation being presented to the Georgia General Assembly which would affect the health care delivery system in the state.

DEATHS

David Robinson

David Robinson, M.D., 65, of Tybee Island, died Saturday, Nov. 22, 1980, in Boca Raton, Florida.

Dr. Robinson was a retired radiologist, having received his M.D. degree from the Medical College of Georgia. He had practiced in Savannah from 1947 until his retirement in 1970. He was a member of the Georgia Medical Society, the Medical Association of Georgia, past president of the Georgia Radiological Society, past president of the medical staff at Candler General Hospital, and past president of the medical staff of the Alee Temple Shrine. He was a member of the Congregation B'nai B'rith Jacob Synagogue and was a U.S. Army veteran of World War II. Dr. Robinson was also an honorary member of the A.O.A. medical fraternity and the Military Order of the World Wars.

Survivors include his wife, a son, two daughters, a brother, and three grandchildren.

Amory Audrey Rogers, Sr.

Amory Audrey Rogers, Sr., M.D., 92, died Monday, Dec. 29, 1980. A native of Madison County, Dr. Rogers received his M.D. degree from Emory University School of Medicine in 1918. After serving in World War I, he set up a medical/surgical practice in Commerce where he worked for over 50 years.

He was a member of the Jackson-Banks County Medical Society and a past vice president of the Medical Association of Georgia. Dr. Rogers served in various capacities in several civic groups and was chairman of the Jackson County Health Department for a number of years.

Survivors include two sons, three sisters, seven grandchildren, and two great-grandchildren.

John R. Bottomy

John R. Bottomy, M.D., 62, of Cumming, died Tuesday, Dec. 30, 1980. A graduate of Rochester Medical School, Dr. Bottomy interned at Strong Hospital. He practiced at Vanderbilt University Hospital and Bellevue Hospital in New York. He then served as assistant professor of obstetrics and gynecology at Emory University Hospital. He was a member of the Medical Association of Atlanta, the Medical Association of Georgia, the American Medical Association, and was a Fellow of the American College of Surgeons.

Survivors include his wife, a daughter, two sons, and a sister.

Charles Hyatt Richardson, Jr.

Charles Hyatt Richardson, Jr., M.D., 66, died Friday, Dec. 19, 1980.

Dr. Richardson, a lifelong resident of Macon, received his M.D. degree from the Columbia College of Physicians and Surgeons and interned at Bellevue Hospital in New York City. He served as a colonel in the U.S. Army Medical Corps and spent 3 years overseas in the European "Theater of Operations." After his return to Macon, he practiced as a general surgeon for 35 years until his retirement in 1970.

Dr. Richardson was a member of the Board of Directors of Middle Georgia Hospital, past chief of surgery at the Medical Center of Central Georgia, and a past president of H.O.P.E. He was also a member of the Bibb County Medical Society, the Medical Association of Georgia, the American Medical Association, and a Fellow in the Southern Surgical Association and the American College of Physicians and Surgeons. He attended Christ Episcopal Church.

Survivors include his wife, two sons, two daughters, a sister, a brother, and six grandchildren.

In lieu of flowers, the family requests that contributions be made to the American Cancer Society, 1027 Walnut St., Macon, GA 31201.

Physician's Recognition Award Recipients

LISTED BELOW *are those physicians in Georgia who have earned the AMA's Physician's Recognition Award for November 1980.*

The award was established in 1969 "to recognize, encourage and support physicians who participate regularly in continuing medical education and to emphasize the importance of developing more meaningful continuing medical education opportunities for physicians." A minimum of 150 credit hours of CME must be earned over a three-year period to qualify for the award. The hours may include such activities as conferences, residencies, teaching, writing, private reading, listening to cassettes, home study courses, consultation, and peer review; at least 60 of the hours, however, must be from formal CME programs sponsored or co-sponsored by organizations accredited for these activities.

We congratulate the following physicians who have distinguished themselves and their profession by their commitment to continuing education:

C. Markham Berry, Atlanta
William S. Bikoff, Atlanta
Joseph Arthur Bishop, Calhoun
William Gerald Bissell, Augusta
William Frank Bloom, Macon
David Morton Boyette, Albany
Alan Paul Brown, Savannah
Gordon C. Carson, Savannah
Rodger William Chapman, Lilburn
Yung Sheng Cheng, Savannah
Anthony Michael Costrini, Savannah
Skina Hossam Fadel, Augusta
Ruth-Marie E.G. Fincher, Ludowici
Evan L. Frederickson, Atlanta
James C. Freeman, Sylvania
David Jay Frolich, Macon
Warren L. Griffin, Macon
Mark Daniel Gronsbell, Atlanta
William D. Hammonds, Atlanta
Ralph Lewis Haynes, Dunwoody
Chester William Ingram, Clayton
Floyd James, Dalton
Fleming Lex Jolley, Brunswick
Carl R. Jordan, Savannah
Sitaram Gururao Kadekar, Martinez
Ellis B. Keener, Decatur
John W. Kelley, Griffin
Kurt Kyle Kroenke, Columbus
Ronald Jay Lehman, Chamblee
Brenda Lois Marino, Savannah
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Richard Taylor Perry, Atlanta
John Emerson Porter, Savannah
Oscar Prada, Dublin
Alexander P. Russell, Savannah
James Clarence Sikes, Macon
John Aziz Souma, Macon
Charles F. Stone, Atlanta
Richard Edward Wild, Columbus
Clyde A. Wilson, Brunswick
Ronald M. Yarrington, Moultrie

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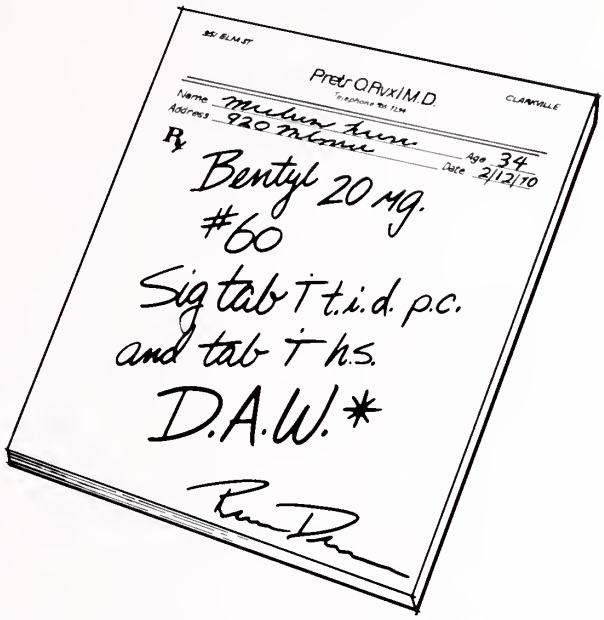
...in the functional bowel/irritable bowel syndrome†

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10 mg. capsules, 20 mg. tablets,
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*D.A.W.-Dispense as written

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- Pharmacologic effect in the distal colon compared to placebo†† shows how Bentyl affects abnormal motor activity in the irritable colon patient.†

† This drug has been classified "probably" effective for this indication.

Merrell

†† In the experiments that showed significant pharmacologic effect, the dose of Bentyl used was 50 mg. I.M., which is higher than that permitted in the labeling. This dose was deemed justified since the recommended daily dose of injectable Bentyl is 20 mg. (2 ml.) every 4 to 6 hours. Thus, in 8 hours, a patient could receive a total of 60 mg. I.M. and at that time, as a result of the sustained plasma levels from the 20 mg. injections at 0 and 4 hours, might show an even higher plasma level that occurs after a single 50 mg. I.M. dose. Presumably, the same pharmacologic effect would follow. These observations do not constitute evidence of efficacy.

Bentyl®

(dicyclomine hydrochloride USP)
Capsules, Tablets, Syrup, Injection
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Brief Summary

INDICATIONS
Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:
For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING CDMBINATIONS DF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIDRATIDN OF ENVIRONMENTAL FACTORS.
For use in the treatment of infant colic (syrup).
Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Dbstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and/or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.
Use with caution in patients with:
Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.
Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.
Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/ antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.
Usual Dosage
Bentyl 10 mg. capsule and syrup: *Adults:* 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children:* 1 capsule or teaspoonful syrup three or four times daily. *Infants:* ½ teaspoonful syrup three or four times daily. (Dilute with equal volume of water.)
Bentyl 20 mg.: *Adults:* 1 tablet three or four times daily.
Bentyl Injection: *Adults:* 2 ml. (20 mg.) every four to six hours intramuscularly only.
NDT FOR INTRAVENOUS USE.

MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of July, 1980

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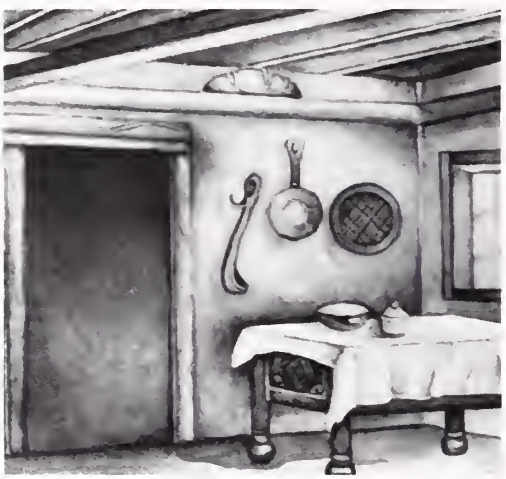
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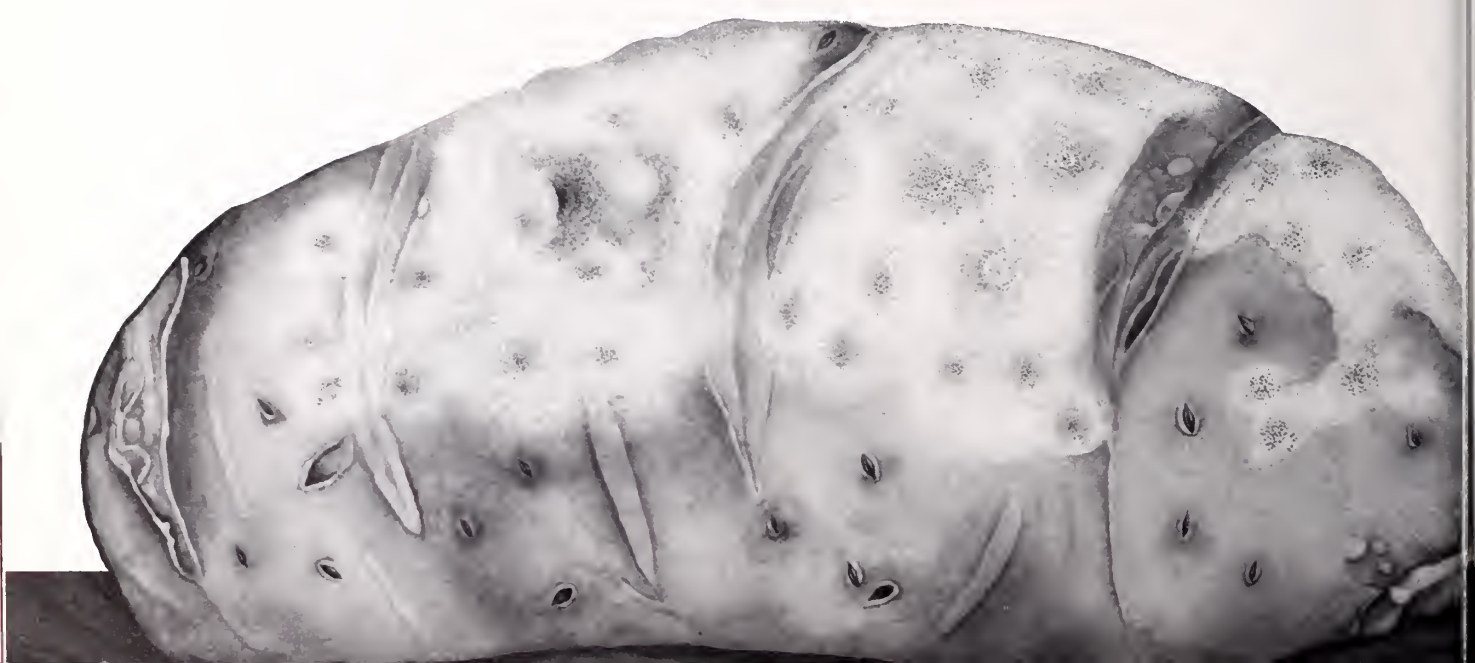
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Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



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for the treatment* of known or suspected staphylococcal infections such as:

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- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]



Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

Tegopen® (cloxacillin sodium) Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy

‡Not all isolates may have been tested using both discs.

Tegopen®
(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information
For complete information, consult Official Package Circular
(12) 9/11/75

INDICATIONS
Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)
Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE
When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.
Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.
Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.
Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS.
A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.
There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents (e.g., pressor amines, antihistamines, and corticosteroids).
Safety for use in pregnancy has not been established.

PRECAUTIONS
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.
As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE.
Adults: 250 mg. q 6h.
Children: 50 mg./Kg./day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.
N.B.—INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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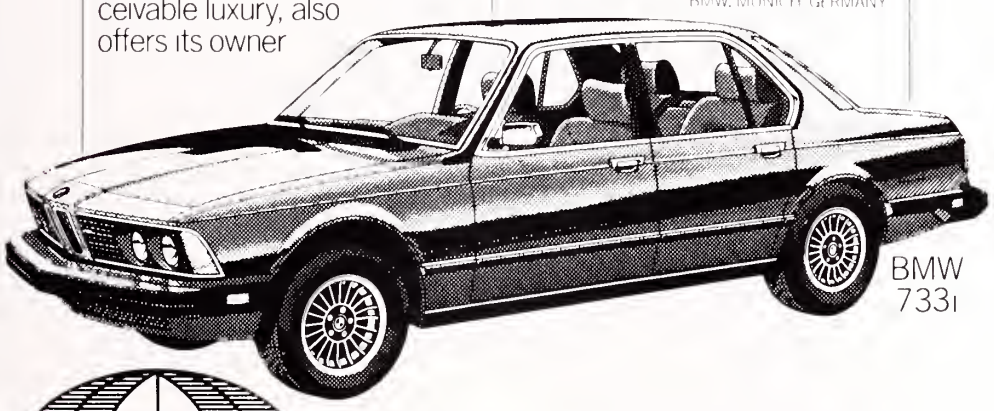
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JOURNAL
of the medical association of georgia
938 Peachtree Street, NE Atlanta, Georgia 30309

MANUSCRIPTS — Articles are accepted for publication on the condition that they are contributed solely in this *Journal*. Manuscripts should be typewritten, double-spaced, and the original and one copy should be submitted. Receipt of manuscripts will be acknowledged and unused manuscripts returned. Used manuscripts will be returned only if requested.

STYLE — Ordinarily articles should not exceed 3,000 words. Only under exceptional circumstances will articles of over 4,000 words be published. Footnotes, bibliographies, and legends should be typed on separate sheets, double-spaced. Bibliographies should conform to the following style: name of author (with initials), title of article, name of periodical, date, volume (number, if available), and pages.

> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

NEWS NOTES — District and county medical societies, Association members, and readers are invited to send in any news items of general concern to members of the Medical Association of Georgia.

REPRINTS — Requests for reprints should be made directly to The Ovid Bell Press, Inc., 1201-05 Bluff Street, Fulton, Missouri 65251. Reprints must be ordered within 30 days after publication, since all type will be destroyed after that time.

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MEDICAL EDITING SERVICE — If in the opinion of the *Journal* Editorial Board, material submitted for publication could be improved by a Medical Editing Service, the Editor will contact the author for his approval. Association members needing assistance in preparation of material for publication may also use this service. A reasonable charge is made for this service and the cost of this will be borne by the author.

Classifieds

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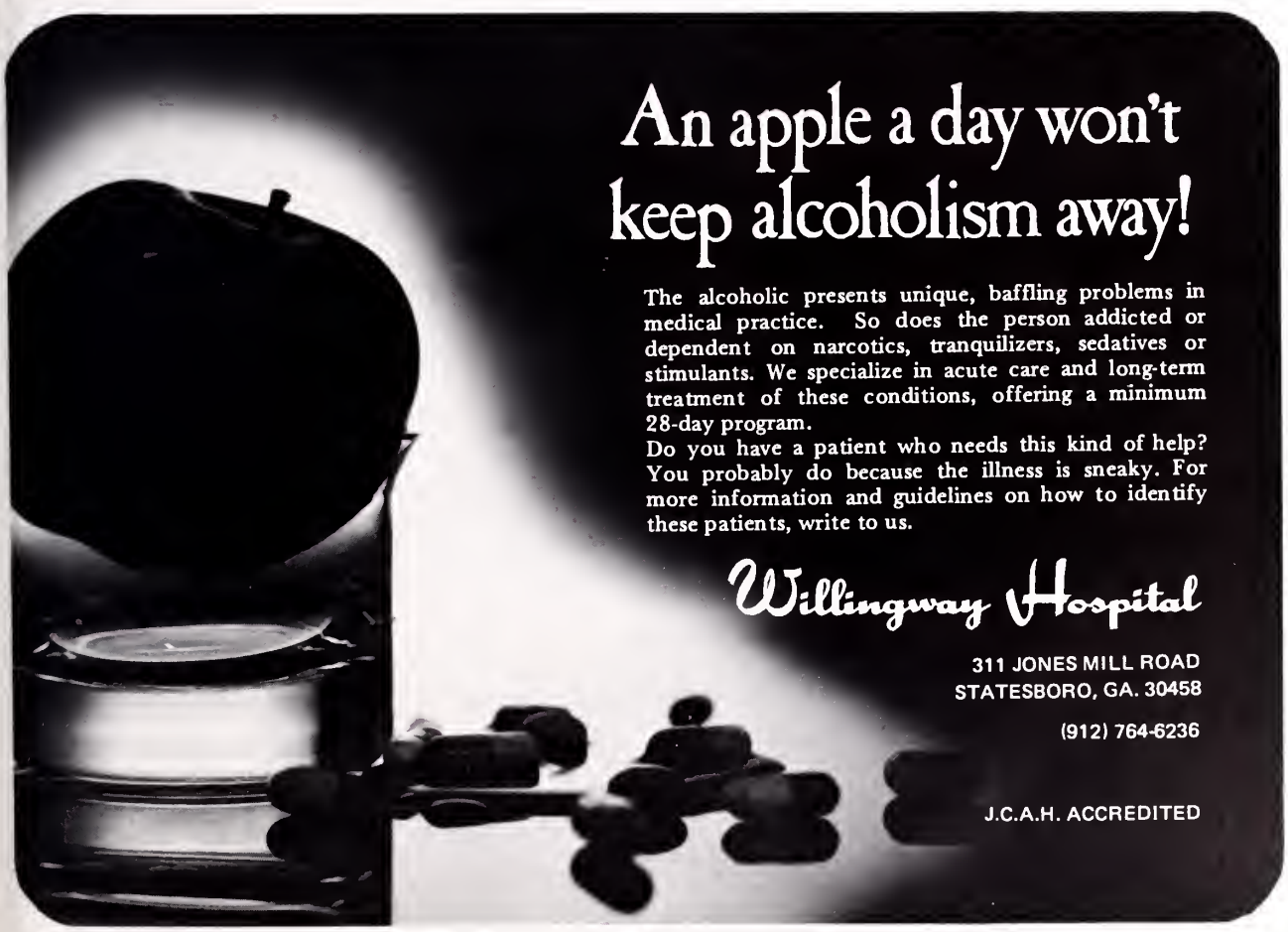
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Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly D. pneumoniae)
Otitis media caused by S. pneumoniae (formerly D. pneumoniae) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacterialogic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacterialogic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d.
		body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

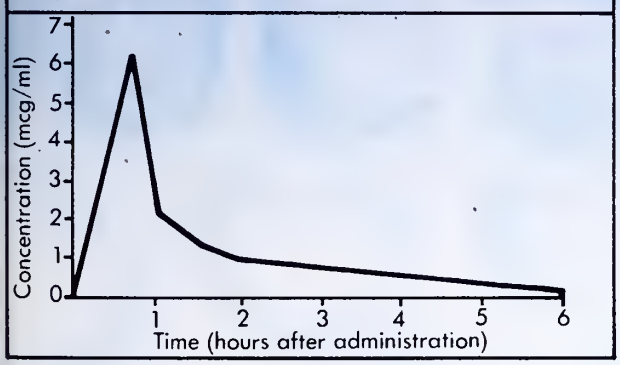
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*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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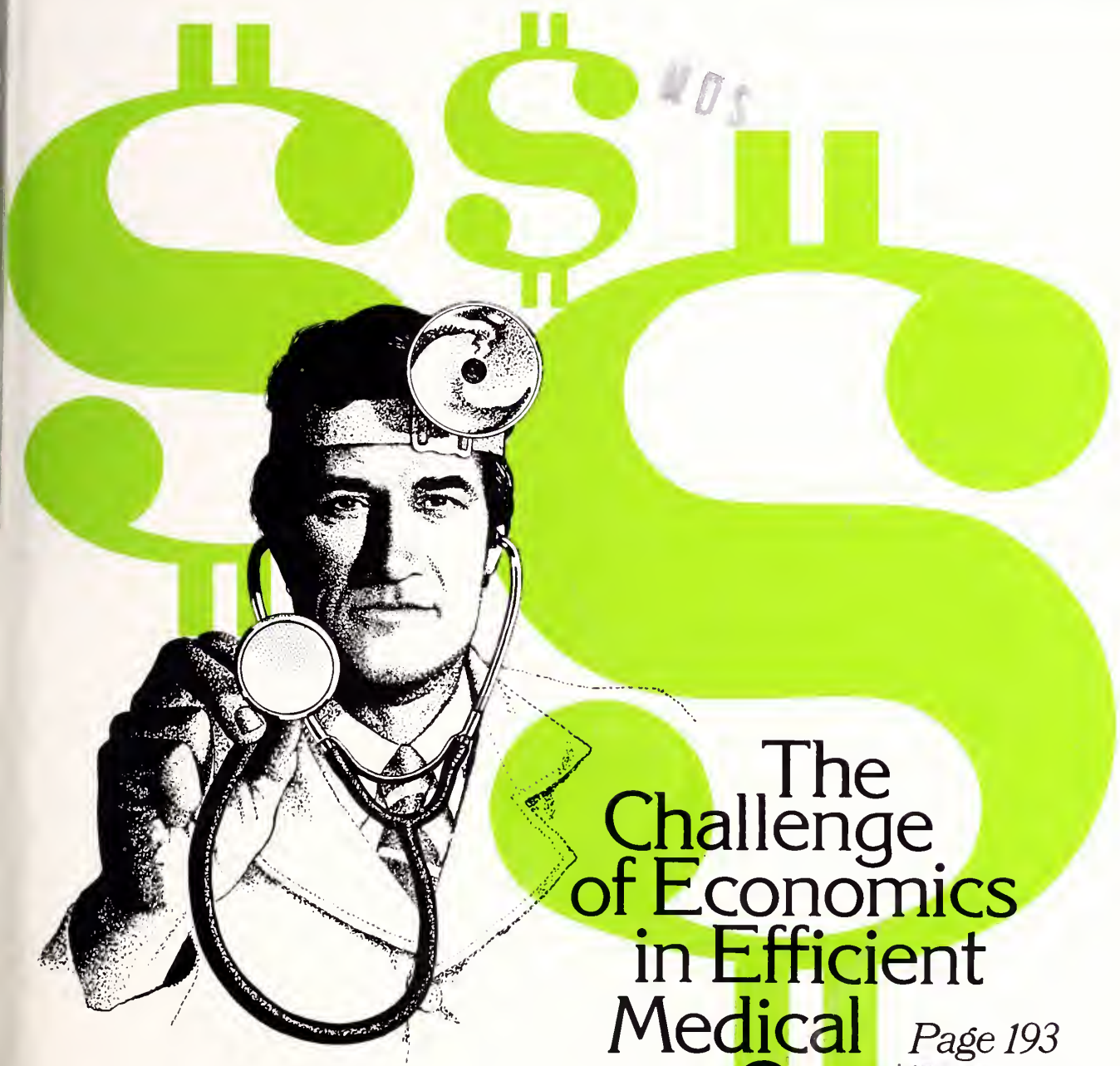
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The Challenge of Economics in Efficient Medical Care

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COX BROADCASTING 7,5)	5	12/23/74	42	740%
ROLLINS, INC.	17	3/27/74	33	94%
JOHN HARLAND 8)	14	4/2/74	40	185%
BURNUP AND SIMS	19	4/15/74	15	(21%)
HOSPITAL CORPORATION OF AMERICA 1)	14	4/28/76	50	256%
AMERICAN MEDICORP 3)	7	4/28/76	23	228%
AMIC CORPORATION 6)	11	12/4/76	26	136%
UNITED GUARANTY 1)	10	12/4/76	29	190%
RMIC CORPORATION 2)	6	12/4/76	25	317%
MGIC	15	2/27/78	31	106%
CAPITAL CITIES 5)	28	2/27/78	66	135%
LEVITZ	23	5/12/78	29	26%
XTRA 5)	16	10/30/78	20	25%
EASTERN AIR LINES	9	10/30/78	9	0%
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McDONALD'S	38	3/27/80	47	24%
SMITH-KLINE	47	3/27/80	58	23%
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THE COVER

Delivering low cost and high quality medical care retains top priority in the minds of most physicians. Certainly we have come to recognize that government does not have all the solutions. Mr. Fickling's editorial on p. 193 probes some new solutions which are especially relevant in the wake of Ronald Reagan's inauguration. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

Incidental Intelligence . . .

Symposium '81 — "Choosing Lifestyles" — April 2, 3

Seven outstanding speakers from throughout the United States have been selected to discuss the topic *"Choosing Lifestyles,"* at the 1981 Cobb County Symposium to be held at Kennesaw College in Marietta. This is a very appropriate topic for our times when we consider the radical changes in lifestyles which have occurred during recent years. The Rev. Dr. William M. Pinson, President of the Golden Gate Theological Seminary in San Francisco, will address the topic, *"Religion and Lifestyles"; "Changing Roles of Women and Lifestyles"* will be presented by Dr. Sarah Frances of Louisiana College. Dr. Merle S. Kroop will speak on *"Sex Therapy, Human Sexuality, and Lifestyles."* Dr. Kroop is from Cornell Medical College in New York. Bill Curry, Georgia Tech's head football coach, will speak on *"Sports and Lifestyles"*; Gilbert Raiford, Ph.D., from the Barry College School of Social Work in Miami, will address the topic *"Black Culture and Lifestyles." "Chemical Dependency (Alcohol, Drugs) and Lifestyles"* will be discussed by Dr. Douglass Talbott, a specialist in the diagnosis and treatment of disease dealing with the abuse of and addiction to alcohol and other drugs. Dr. James D. Mallory, Jr., of the Atlanta Counseling Center, will speak on *"Narcissism For Sale: Flakes and Frauds."*



Dr. Sarah Frances Anders



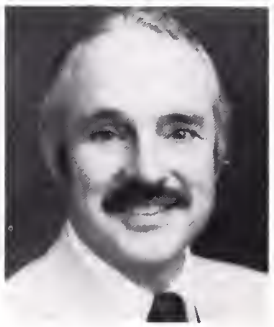
Dr. James Mallory, Jr.



The Rev. Dr. William A. Pinson



Gilbert Raiford, Ph.D.



Dr. Douglas Talbott



Dr. Merle S. Kroop



Bill Curry

Because of the financial support received for this Symposium from organizations in Cobb County, the only cost of any part of the program is for the dinner which will be at the new Cobb County Marriott on I-75. Further information regarding the Symposium may be obtained by writing to the Office of Development and Public Relations, Kennesaw College, Marietta, GA 30061, or by calling (404) 422-8770.

Sexual Medicine Department Opened at Peachtree and Parkwood

A Department of Sexual Medicine has been established at Peachtree and Parkwood Mental Health Center and Hospitals. L. Guy Chelton, M.D., the Center's Director and Board Chairman, has appointed Richard P. Michael, M.D., Ph.D. to head the Department, which will span several of the more traditional specialties such as psychiatry, psychology, gynecology, urology, and endocrinology.

Dr. Chelton said the primary objective of the Sexual Medicine Department will be to provide a consultative and diagnostic service for patients of both sexes who need special help in the area of sexual functioning. This service will be available for both inpatients and outpatients. Following consultation and diagnosis, treatment may either be carried out by the referring physician or by the Department. In the diagnostic process, endocrine and reproduc-

tive function will be assessed by plasma hormone determinations and by modern techniques of plethysmography which help to assess the relative importance of psychogenic and organic (endocrine, neural, and vascular) factors.

Dr. Michael is Professor of Psychiatry and Professor of Anatomy at Emory University School of Medicine, and is Director of the Biological Psychiatry Laboratories at Georgia Mental Health Institute. He received research training at Oxford University in England and his M.D. from London University. *For further information, contact: Bob Powell, Associate Administrator, 404/633-8431.*

The Future of PSROs?

The "lame duck" budget submitted by the Carter Administration proposes no change in funding for the Professional Standards Review Organization (PSRO) program, and predicts that PSROs will save the government $244 million through reducing the number of Medicare hospital days and reducing inappropriate medical care. And yet . . .

At the recent Senate confirmation hearing of Richard Schweiker as Secretary of HHS, Freshman Senator Steven D. Symms (R-Id.) asked Schweiker about PSROs, pointing out that the AMA House of Delegates had recently opposed them after originally supporting them. Schweiker said that PSROs would be at the top of the list of programs for reevaluation. He said he had made no final judgment, but that preliminary figures indicated that PSROs are spending more money than they are saving.

(Editorial Note: In a report published in the April, 1979, issue of the MAG Journal *[p. 298], we quoted an HEW report which estimated that PSROs* saved *$50 million in 1977 by eliminating unnecessary days in the hospital. And yet . . ., the 96 PSROs throughout the country* spent *$45 million that year to review hospital care – for a* net savings *of $5 million. In a recent issue [Feb. 13, 1981],* American Medical News *reported that the Congressional Budget Office had found that for every $1 spent on review, there was only 90¢ in savings to the federal government (i.e., a* net loss *of 10¢ on the dollar). Critical scrutiny of this program is obviously mandated by this questionable cost effectiveness.)*

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MEDICAL MEETING CALENDAR

MARCH

20-22 — *Kiawah Island, SC;* **AMERICAN COLLEGE OF PHYSICIANS MEETING;** Contact: Clarence W. Legerton, Jr., M.D., Medical Univ. Hospital, 171 Ashley Ave., Charleston, SC 29401.

21-22 — *Tampa, FL;* **CONTROVERSIES IN PULMONARY MEDICINE;** Contact: Univ. of S. Florida College of Med., Dept. of Internal Med., 12901 N. 30th St., Tampa, FL 33612.

22-25 — *Atlanta;* **ATLANTA GRADUATE MEDICAL ASSEMBLY;** Contact: Med. Assn. of Atlanta, 875 W. Peachtree St., NE, Atlanta 30309.

23-25 — *Savannah;* **PEDIATRIC OPHTHALMOLOGY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

26 — *Atlanta;* **TEAM BUILDING — A BETTER WAY TO SUPERVISE;** Contact: Sheila Carson or Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or toll free, 1-800-282-0224.

27-28 — *Atlanta;* **STARTING YOUR PRACTICE;** Category 1 credit; Contact: Sheila Carson or Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or toll free, 1-800-282-0224.

29-Apr. 2 — *New Orleans, LA;* **SPRING MEETING, AMERICAN COLLEGE OF SURGEONS;** Contact: American College of Surgeons, 55 E. Erie St., Chicago, IL 60611.

APRIL

4-8 — *Washington, DC;* **37TH ANNUAL CONGRESS OF THE AMERICAN COLLEGE OF ALLERGISTS;** Category 1 credit; Contact: Shirley Schoenberger, American College of Allergists, 2141 Fourteenth St., Boulder, CO 80302. PH:303/447-8111.

9-11 — *Atlanta;* **POSTGRADUATE COURSE IN GYNECOLOGIC ONCOLOGY AND COLPOSCOPY;** Contact: Ernest W. Franklin III, M.D., The Foundation for Gynecologic Oncology, Inc., 5669 Peachtree-Dunwoody Rd., NE, Suite 100, Atlanta 30312.

9-12 — *Atlanta;* **BASIC, INTERMEDIATE, AND ADVANCED HYPNOSIS WORKSHOPS;** Category 1 credit; Contact: Sheldon B. Cohen, M.D., Atlanta Society of Clinical Hypnosis, 401 Peachtree St., NE, Atlanta, GA 30308. PH:404/525-6158.

23-25 — *Washington, DC;* **NATIONAL CONFERENCE ON HUMAN VALUES AND CANCER — PSYCHOLOGICAL, SOCIAL, & ETHICAL ISSUES;** Category 1 credit; Contact: Nicholas G. Bottiglieri, M.D., Amer. Cancer Society, Nat'l Conference on Human Values & Cancer, 777 Third Ave., New York, NY 10017. PH:212/371-2900.

24 — *Atlanta;* **SECOND BIENNIAL GASTROENTEROLOGY SEMINAR;** Category 1 credit; Contact: Dept. of Graduate & Cont. Med. Ed., Ga. Baptist Med. Ctr., 3 West, 300 Boulevard, NE, Atlanta 30312. PH:404/653-4600.

24-25 — *Augusta;* **DISEASE PREVENTION AND HEALTH MAINTENANCE;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912.

25-May 1 — *Atlanta;* **AMERICAN OCCUPATIONAL HEALTH CONFERENCE;** Contact: Howard Schulz, American Occupational Med. Assn., 150 N. Wacker Dr., Chicago, IL 60606. PH:312/782-2166.

30-May 2 — *Dallas, TX;* **RENAL BIOPSY PATHOLOGY IN MEDICAL DISEASE;** Contact: Dr. Edwin H.Eigenbrodt, Dept. of Pathology, Univ. of Texas Health Science Ctr., 5323 Harry Hines Blvd., Dallas, TX 75235. PH:214/688-2133.

30-May 3 — *Sea Island;* **GEORGIA SOCIETY OF OPHTHALMOLOGY ANNUAL MEETING;** Category 1 credit; Contact: Talitha Russell, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535, ext. 51, or toll free, 1-800-282-0224, ext. 51.

MAY

8-10 — *Callaway Gardens;* **ANNUAL MEETING, MAG HOUSE OF DELEGATES;** Contact: Tom Sawyer, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or toll free, 1-800-282-0224.

11-16 — *Augusta;* **FAMILY PRACTICE SYMPOSIUM;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

18-21 — *Atlanta;* **CENTER FOR DISEASE CONTROL'S 16TH IMMUNIZATION CONFERENCE;** Contact: C. Walt Scheffel, CDC, Atlanta 30333. PH:404/329-3631.

18-22 — *Augusta;* **SECOND ANNUAL CRITICAL CARE MEDICINE SYMPOSIUM;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912.

20-22 — *Huntsville, AL;* **SOUTHERN REGIONAL CONFERENCE ON EMERGENCY AND CRITICAL CARE MEDICINE;** Category 1 credit; Contact: Steven Hall, Box 2104, Decatur, AL 35602. PH:205/353-3800.

20-23 — *Jekyll Island;* **GEORGIA PUBLIC HEALTH ASSOCIATION MEETING;** Contact: J. D. Smith, Ga. Public Health Assn., P.O. Box 38183, Atlanta 30334. PH:404/656-4764.

21-22 — *Callaway Gardens;* **NINTH ANNUAL PERINATAL MEDICINE CONFERENCE;** Category 1 credit; Contact: Div. of Perinatology, The Medical Center, P.O. Box 951, Columbus 31994. PH:404/324-4711.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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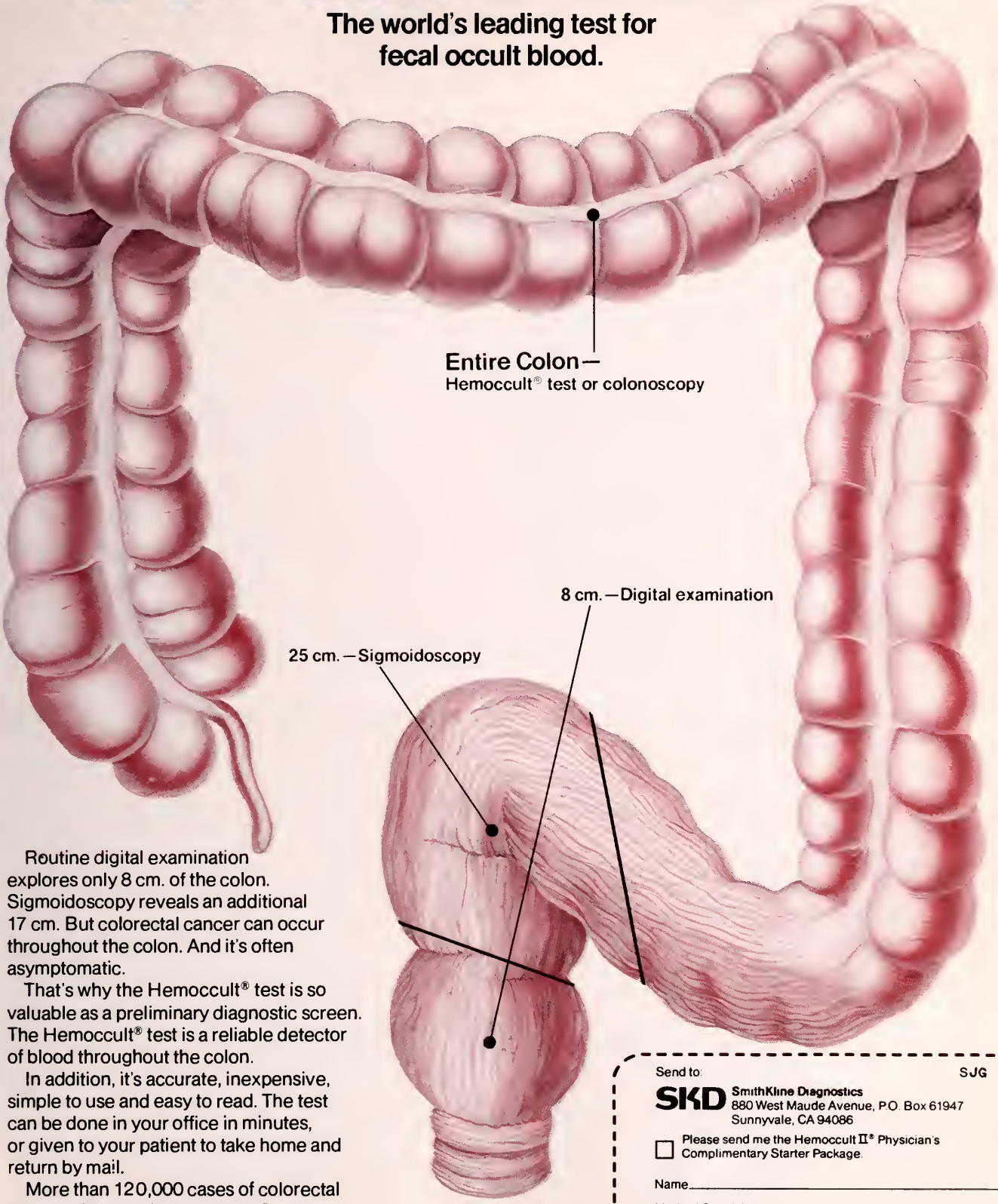
Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

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DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.)

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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The Medical Career of Samuel Stout — Part II

JULIA EMMONS, *Atlanta**

THE OUTBREAK of the Civil War took Samuel Stout, then 38, from a prosperous rural practice of general medicine to a practice of far greater scope, one which would eventually make him one of the most important and powerful doctors in the Confederacy. His first assignment was as head of a military hospital at Bowling Green, Kentucky. He then supervised a larger military hospital in Nashville and, later, others in Chattanooga. By August, 1862, Stout was General Hospital Superintendent of a region that included over half a dozen hospitals with a total of 5,800 beds. His outstanding ability as a hospital administrator became evident early and brought him to the attention of General Braxton Bragg of the Army of Tennessee and Dr. A. S. Foard, its Medical Director. In 1863, impressed by Stout's brilliant administration of hospital procedures, these two men created a new position for him as Medical Director of Hospitals of the Army of Tennessee.

Medical Director Stout

Samuel Stout now occupied a position parallel to that of the Medical Director of the Army; he reported only to the Surgeon General in Richmond. The new structure divided the administrative responsibilities of the medical service into two parts: that which moved with the troops and was present at the battle site was run by Foard, and that run by Stout which was in charge of the long-term care of troops too sick or wounded to take part in fighting. Stout found, however, that his relations with General Bragg remained unchanged. As he later remarked in his memoirs:

> *We, as before, cordially cooperated in the interest of the service. I promptly obeyed every order and complied with every request coming from headquarters of the Army, and General Bragg was always helpful to me in rendering my administration of the hospitals efficient and successful by issuing such orders as I represented him to be needed. . . . At my request, he assigned at every town or locality where hospitals were inaugurated a commander of the post, a quartermaster, and a commissary, all of whom are necessary to the proper military control and the furnishing of supplies and subsistence for all employees about or in hospitals and the patients therein.*[1]

There were some others, however, who did not welcome the rapid rise of the former rural practitioner. "A few disappointed 'sore-heads' were disposed to grumble because a man unknown to them had been placed over them," Stout later recalled.

> *To one such, a man well known to fame, who was much disgruntled because he thought his reputation entitled him to the place, and who in a rather offensive tone asked me, "who are you, Dr. Stout, and where do you come from?" I sarcastically replied, "I am from the backwoods of Tennessee – Giles County – where I have been practicing medicine and surgery, having my office in a large hollow yellow poplar tree."*

* Ms. Emmons is an Associate Professor in the Division of Librarianship at Emory University and is also completing a Ph.D. degree in the History Department there. Part I of this article was published in the November, 1980, issue of the *Journal*. Send reprint requests to Ms. Emmons at the Department of History, Emory University, Atlanta, GA 30322.

"This gentleman," Stout added, "however, soon got well of his chagrin, and we were best of friends to the end of the war."[2]

The creation of the two parallel directorships underscored the difference between the two types of medical careers that were followed during the war, one in the field, the other safe behind the lines. Stout was defensive on the matter and felt hurt, as he wrote a colleague, over "an unaccountable lack of charity, to say nothing of want of confidence on the part of surgeons in the field towards the medical officers in the hospitals. . . . Many surgeons in the field," he complained, "lend an attentive ear to slander the most unfounded against their professional brethren, laboring to maintain the dignity and respectability of their profession, to ameliorate the condition of the sick and at the same time to sustain the discipline of the army."[3] Nonetheless, Stout points out in his memoirs that he "was twice only during the years in the reach of the enemy's shells."[4] An additional picture of life behind the lines is given by F. E. Daniel in *Recollections of a Rebel Surgeon*.[5] Daniel was Stout's chief clerk in the first months of Stout's directorship. He quit the job, Daniel wrote, because

> *I found that place almost too soft. . . . Remember, I was young; I was ambitious too. I stated to Dr. Stout, the Medical Director of Hospitals, that in a position in his office, however soft and secure from shot, shell and capture, likewise from cold and exposure; however honorable, it afforded no opportunities for getting any practical knowledge of surgery; that wars didn't occur every day, and that the chances for operative experience afforded by the war were too rare to be wasted.*

Not that Daniel wanted to go out into the mud and cold for such experience; "I wanted," he continued, "a place in some good warm and safe hospital, where I could study and practice surgery."

Stout ordered hospital wards built that were a variation of the more traditional design endorsed by Florence Nightingale.

Stout's sensitivity on this matter, however, was not a running theme in his correspondence or later writings; he had far more important matters to worry about, and he promptly set about his tasks. Among the problems that occupied him in the early months of his directorship was the need to increase Chattanooga's hospital capacity. Wounded and sick had been pouring into the city in ever increasing numbers following the Battle of Murfreesboro in early 1862 and the ensuing occupation of a large part of middle Tennessee and all of East Tennessee by the Confederate forces. Stout decided to enlarge the facilities by building pavillion wards for the Academy Hospital.

Improving Hospital Ventilation

The construction of these wards reflected the latest thinking in hospital design of his day and indicated that Stout, though but recently a rural practitioner, was not only a gifted administrator but was also well aware of modern trends in medical care. Following what he felt was "common sense and well-known pneumatic laws,"[6] Stout ordered wards built that were a variation of the ward design endorsed by Florence Nightingale and popularized by her *Notes on Hospitals* (1859). The concept was not original with Nightingale; according to architectural historians J. D. Thompson and G. Goldin, it was "rather the embodiment of sanitary insights of the nineteenth and earlier centuries."[7] Basically, what Nightingale encouraged was building hospital wards that were ventilated so as to sweep supposedly germ-laden air out of the room away from the patients. To accomplish this, the side walls had to be properly ventilated, allowing fresh air and light in, and the roof so constructed that openings under the eaves and along the ridgepole would allow foul air to escape. Continuous fresh air was thus to flow into the building and push bad air up and out (Figure 1). Nightingale's design was adopted both by the Union and Confederate armies during the war.[8] The most famous example in the Confederacy was Richmond's Chimborazo Hospital which accommodated 7,000 patients in 150 wards.

As Stout remarked in a discussion of this war design, the patients in the inner rows of bunks still received the germ-laden air from patients in the outer rows. Moreover, the ventilation was not always effective; in very bad weather the windows were closed thus cutting off the free flow of air, while in the warmest weather, when all doors and windows were open — those on the ends of the room as well as on the sides — eddies would form "by which some patients were enveloped for a greater or less time in very foul air, much to their discomfort."[9] In addition, the ridgepole ventilation was not always effective in drawing up the bad air.

Stout's modifications on the Nightingale design, which he developed for the Academy Hospital and afterwards used for the other ward constructions he supervised, consisted of three improvements he felt would insure that "no foul air from one patient swept over another." (Figure 2).[10] First, it consisted of only two rows of bunks, each set beneath facing rows of windows. Thus, the air escaping up to the roof in the middle of the room did not pass over any patients. Secondly, beneath the windows, some inches

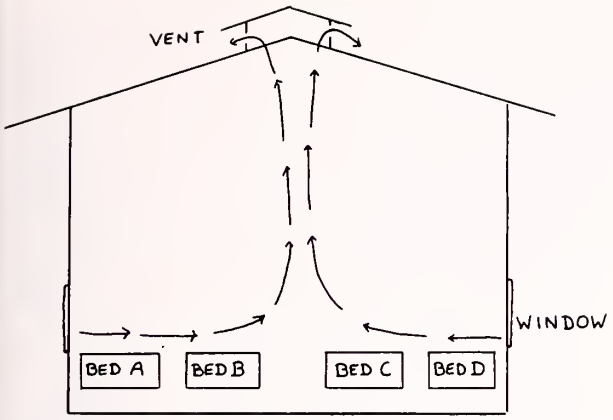


FIGURE 1 — Traditional design of hospital wards with subsequent ventilation patterns as used prior to and during the Civil War.

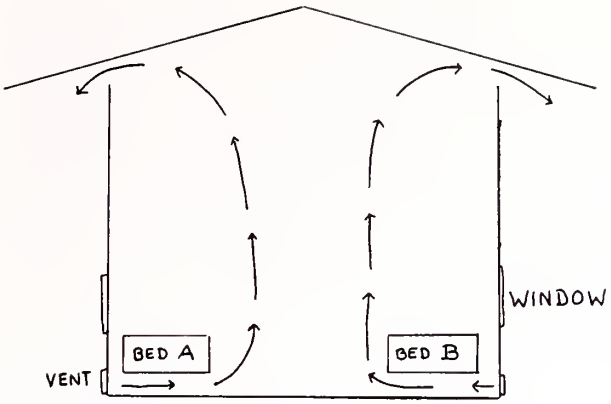


FIGURE 2 — Stout's modification of hospital ward design to improve ventilation and lessen patients' exposure to germ-laden air.

above the floor, were set ventilators with sliding doors. On the coldest days, therefore, the patients could be warmly covered and the smaller ventilators open to allow fresh air to come in under the beds and push the foul air up and out. The third modification Stout incorporated was to make the roof opening under the gables rather than along the ridgepole; he felt this would prevent eddies from developing on the warm days. As with all other hospitals following Nightingale's model, the storerooms, kitchens, dining rooms and other auxiliary areas that attracted dirt and were thus difficult to keep clean, were detached from the wards by corridors.[11]

Obtaining Supplies

Other matters also clamored for Stout's attention. Among the most pressing was the difficulty in getting adequate food supplies to the hospitals. As Kate Cumming noted in her diary, there was much to be done. "The great cry of our sick is for milk," she wrote, describing the conditions at the Newsom Hospital. "We could have plenty, but have no money. . . . In every hospital there is invariably a fund," she added, "but there is not at present in this."[12] A more hopeful note was sounded in her entry 2 weeks later, "I hope there will be a change for the better soon, and that we will be about to get plenty of money, as Dr. Stout (who is said to be an excellent manager) is now Medical Director of the hospital department, from Atlanta to this post."[13]

Miss Cumming's hopes were not in vain. Stout was very concerned that the hospitals under his command use their funds wisely to provide adequate nourishment to the patients. The hospital funds were provided directly by the government to the hospitals in lieu of rations and were to be used to purchase adequate supplies of appropriate food for the sick and wounded. Stout tried to make sure that each hospital spent its entire allotment on fresh produce bought directly from the farmers and on other items such as coffee when it was available. Later in the war, when rampant inflation sent food prices soaring, Stout used a barter system to obtain food. He spent hospital food monies on wagon-loads of spun cotton directly from factories and then sent men out into the countryside to exchange it for edibles.[14] He likewise had a local potter produce enough bowls and dishes not only to meet hospital needs but also to trade for food. In addition, to stretch the funds further, Stout encouraged each hospital to bake its own bread, keep its own milk cows, grow its own vegetables from seeds he provided.[15] The Medical Director even went so far as to buy a press to print all the needed forms for his department and thus was able to save a great deal of money.[16] Even with Stout's ingenious efforts, however, many shortages could not be replenished. Cunningham[17] has concluded that "the chief failure of the hospital staff was its inability to furnish the patients with a nourishing and palatable diet. . . . For the most part, however," he adds, "this deficiency was due to causes over which the hospital administrators had little or no control."

Innovations Regarding Record Keeping

Stout's efficiency was also evident in his meticulous record keeping in spite of the difficult wartime conditions. The maintenance of up-to-date records was of particular concern to the commanding officers in the field, since they needed to know where their sick and wounded men were and when they could be expected back. Moreover, the commanders wished to discourage desertion, but without adequate records, desertion not only was easy but prevalent. At one point, two generals suggested to Stout that the only solution would be to send all the men from a command to a specific hospital so that the officers would know exactly where the patients were. Relatives and friends were also concerned,

and some suggested that each hospital receive patients from only certain states in order to make finding an individual easier.[18] Stout was unhappy with such solutions and in one letter pointed out that "in assigning men to hospitals, reference cannot be had to the state or division to which they belong. The nature of the case and the ability of the patient to bear transportation are the chief considerations in assigning men to particular hospitals."[19]

Stout's innovation in medical care and hospital management did much to alleviate the painful circumstances of wartime conditions.

Stout's own solution, which he put into effect by October, 1863, was to rationalize the assignment and supervision of patients. Earlier in the war, the patients were received quite haphazardly and assigned to any hospitals that had available space. Officers and relatives searching for an individual had to check with each institution. In order to keep better control, Stout set up a receiving and distributing hospital near the train depots. Officers accompanying the trainloads of wounded would turn them over there to the surgeon in charge. This surgeon, who was furnished with a daily list of empty beds, would assign the soldiers to hospitals, then turn his records in to a general registry maintained at Stout's headquarters. All surgeons in charge of the other hospitals also sent in daily reports giving the name, rank, status of the wound or diagnosis of the disease of each man under his control. Commanders and relatives thus had only to check with the register to locate an individual.[20] The Surgeon General, in late 1863, sent orders to all the Directors to set up centralized record-keeping; Stout was pleased to reply that he had begun his own program months before.[21] Nor did his efficient record maintenance go unnoticed. "Send me a copy of your monthly summary," wrote the Inspector of Hospitals in Richmond. "The management of your department so far as I can at present judge is far superior to that of any other in the Confederacy."[22]

Stout's interest in records did not stop with the registry; his program extended to the preservation of other documents as well. Cunningham found that "Stout, perhaps more than any other medical officer of the Confederacy, recognized the importance of medical records and preserved material of his department to the time of his death."[23] Stout himself wrote that he had been "profoundly impressed, from its incipiency, with the probable magnitude of the war, and the importance of preserving every document of an official character that might prove to be of value to future historians and to science."[24] The doctor likewise encouraged his subordinates to maintain written records. Following the Battle of Chickamauga, he wrote the Surgeon General that "in a professional point of view, a fine field for observation is now being presented and I have been urging the surgeons to be careful to note their cases in order that their experience may be made available hereafter. . . . Their zeal and professional pride, in my opinion," he added, "will cause many of the surgeons in my department to make more carefully prepared reports than heretofore."[25] This understanding of the importance of writing down observations and keeping careful records on the part of a former rural general practitioner might appear unusual unless one remembers that Stout was trained in Philadelphia by Gerhard, a man who studied in turn with Pierre Louis, a pioneer in clinical observation and record keeping. Both apparently shared the belief in the importance of maintaining accurate data.

Stout does not seem, however, to have been very enthusiastic in promoting research during this period. He doubtless felt that, given the chaotic wartime conditions, doctors had better things to do than conduct scientific research. There is no mention of the value of such research in any of his writings. Breedon, in his biography of doctor-scientist Joseph Jones, quotes Stout as saying of Jones and his scientific activities that he was "to be seen everywhere *flickering* about and furnishing aid no where to the over-worked surgeons."[26]

Though he may not have supported the scientists' viewpoint, Stout was very concerned with maintaining a superior staff of surgeons. In general, finding men of high caliber appears not to have been a serious problem. "I am satisfied," he wrote Richardson in March, 1864, "that the medical corps in this department has been steadily improving in efficiency and faithful attention to duty." He also outlined his method for getting good service:

> *I have found that most work is obtained by encouraging men to do their duty . . . when general principles are laid down and the details of their mode of application are left to the judgement, the honor, and the conscience of the officer. . . . They chiefly need instruction, and in special cases, where there is neglect of duty, intoxication, incompetency . . . either physical or mental or both, by a wise exercise of their authority, medical directors, and the Surgeon General can secure the punishment.*[27]

As might be expected, Stout heard about the sort of incompetents that were to be found. "I beg that you will send me at least two officers whom you *know* to be good men," wrote one surgeon-in-charge. "I want some *Medical Brains*. . . . Please send me a good medical man — Don't send any more trash as I

have enough of that sort already.''[28] Stout had particular trouble with Dr. Paul Eve, a distinguished operating surgeon before the war who Stout felt was ''disgruntled at not being made Surgeon General.''[29] When placed in charge of an Atlanta hospital, Eve quarreled with surgeons, maintained filthy premises which he refused to clean up, and did not follow orders.[30] Fortunately for Stout, there were apparently few such Dr. Eve's under his command.

Organizing Mobile Hospitals

Following the Battle of Chickamauga in September, 1863, it became evident that Chattanooga itself might have to be evacuated. Stout was prepared for such an eventuality. He had learned a lesson from his experiences in Nashville where he had found, as he later wrote, that the hospitals there had been not so organized ''that they could be removed with their official corps intact, after the fall of Fort Donelson and the evacuation of the capital of Tennessee. . . . The hospitals there were ordered closed,'' he continued, ''and most of the medical officers serving them were directed to report elsewhere for duty. Thus there arose a necessity for the organization anew of general hospitals.''[31] With support from Bragg and Foard, Stout so organized the hospitals under his direction that, when evacuation did become necessary, each hospital could be moved with its organization preserved, leaving only the shell of a building behind. Personnel, patients, cooking utensils, bunks, bedding, and medicine travelled as a unit to a safer locale. The Academy Hospital, which was founded in the Chattanooga school that gave it its name, was thus transferred to Marietta, Atlanta, Forsythe, Auburn, Corinth, and finally saw the end of the war back in Auburn.[32] A letter Stout received on Sept. 13, 1863, indicates that his organization of mobile hospitals was in good working order by that autumn: ''I have successfully removed all the valuable hospital property south . . .'' wrote a surgeon-in-charge. ''I am re-opening the hospitals removed from Dalton at La Grange, those removed from Tunnel Hill at Palmetto. . . .''[33] The historian Cunningham was impressed with Stout's concept, which apparently was also used by some field hospitals: ''The remarkable mobility of certain of the general and field hospitals may be considered to have been another important contribution to the history of modern military medicine. . . . In a very real sense Medical Director Samuel H. Stout's hospitals behind the Army of Tennessee along with the field infirmaries in the Army of Northern Virginia were forerunners of the highly mobile hospital units seen during the Second World War.''[34]

During the final year and a half of the war following the evacuation of Chattanooga in November, 1863, Stout's responsibilities greatly increased. Already before the Battle of Chickamauga, Stout's command had been increased to include the hospital department of the Army of East Tennessee. To this enlarged jurisdiction was added, following Hood's march into Tennessee in 1864, the directorship of all the officers of the hospital department of the Army of Mississippi. Thus, by June 4, 1864, Stout's district ran from the Savannah River to the Mississippi; there were 18,000 sick and wounded in the hospitals under his command.[35] Stout's daughter claimed that at one point during Sherman's campaign, Stout had nearly 500 doctors under his authority tending to the needs of over 22,000 disabled soldiers.[36]

One of the main difficulties Stout encountered in setting up and maintaining his far-flung network of mobile hospitals was in effectively restoring the lines of supply to the newly relocated institutions. In a letter to Moore, he complained.

> *My chief difficulty in opening, closing and removing hospitals grow out of the want of prompt, active and zealous cooperation on the part of the Q'masters and subsistence departments. When hospitals are removed, it is often the case that they are for weeks without aid from these departments. The ingenuity and resources of the surgeons are taxed largely in supplying their wants. . . . Considering the amount of work done by them recently and the good conditions of the hospitals, much credit is due to the indefatigable energy of the medical department which with all its deficiencies can justly claim to be under better discipline and better organized than any of the staff departments of this army.*[37]

The hospitals under Stout's command were so organized that, when evacuation became necessary, each hospital could be moved with its organization preserved, leaving only the shell of a building behind.

At one point he attempted to correct the problem of adequate supplies by requesting that quartermasters and commissaries be made directly responsible to him. Richardson relayed Bragg's answer: ''Your suggestions in regard to quartermaster and commissary to report to you are wholly impractical, as a medical officer can command only enlisted men.''[38] The actual construction of new accommodations apparently was less of a problem. A surgeon reporting from Forsythe wrote Stout that he could build a hospital of pavillion wards in a few days that could house 500 patients as long as he could obtain the necessary lumber.[39]

In order to keep in touch with all the hospitals under his care, Stout had initially visited at least once a month each hospital, other than those devoted to convalescents.[40] As his responsibilities grew, however, he seems to have depended more on the inspection tours of his Assistant Director, Samuel Bemiss, who wrote Stout detailed accounts of his observations.[41] In January, 1864, he thus described the situation in Montgomery, Alabama:

> *There are, however, several points in respect to which they fall short of the advantages they possess of good buildings and favorable locality. These are first neatness of the wards. . . . I would suggest that the new hospital about to be opened there . . . be placed under charge of some surgeon so fully experienced in hospital government that he may be qualified to afford an example for the surgeons in charge of hospitals at that post to emulate and imitate.*[42]

The Assistant Director was still making tours the following September, writing back with sympathy that "nearly ever since I began my tour of inspection, the hospitals of this department have been in a migratory state and I have been fully able to appreciate both the trials of the Med. Officer and the hardships of the sick soldiers, both of which have been trying in the extreme."[43]

The patient registry he established enabled both commanders and relatives to find out to which hospital the sick and wounded had been assigned.

Stout also kept abreast of developments at Confederacy headquarters in Richmond. According to his correspondent, Medical Inspector Richardson, the medical service in Virginia could have used a firm hand. "I have been to see the Surg. Genl. but once," he related to Stout,

> *and shall not go again unless I am compelled. The old fellow will be considerably annoyed I presume when the results of the inspections being made here [in Richmond] by Col. Brent and myself are made known. I fancy there will also be a considerable stir among the city practitioners who hold commissions in the P.A.C.S. of which class there is no small number here who do not give the government more than two hours of their valuable services per day. Haven't you some of the same sort? Or was our old friend Eve the only specimen?*[44]

Stout replied promptly: "The evils in the medical department of which you justly complain as existing in Richmond do not exist in my department to a serious extent. . . . There are some practitioners who do a small amount of private practice. . . . I do not, however, believe that since Dr. Eve left here I have had a single surgeon in charge of a hospital who neglects his public duties to attend private patients. . . . Were I Med. Director in Richmond," Stout concluded, "I would soon cleanse that Augean Stable, and I think I could do it without much demoralization resulting."[45] Richardson's implied criticism of "the old fellow," Surgeon General Moore, was probably well-founded. As Cunningham points out, there were several who harbored less than cordial feelings for Moore, including Foard who "held that Moore had based his orders and regulations almost altogether upon information gained from the Army of Tennessee without acknowledging the extent of his indebtedness."[46] Moore was not universally disliked, however. Joseph Jones got along well with him, and Jones' biographer describes Moore as "a strict disciplinarian and a highly efficient and extraordinarily capable administrator who demonstrated and demanded professionalism."[47] If so, Stout and Moore had much in common.

Stout Develops Special-Treatment Hospitals

In his administration of hospitals in the later years of the war, Stout was not only in command of an increasing number of general hospitals but also developed a number of specialized hospitals to which patients would be sent to obtain skilled treatment for a particular disease or injury. A letter of March 2, 1865, refers to a soldier being sent to a hospital for the cure of deformities resulting from gun-shot wounds and for the cure of old ulcerating wounds.[48] In *Doctors in Gray,* Cunningham cites other examples: a ward for eye diseases in Forsythe, Georgia, and the Polk Hospital in Macon which specialized in hernia cases. Cunningham feels that in the "setting aside of separate wards and even entire hospitals for smallpox, eye difficulties, venereal disease, hernia, gangrene, and certain other ailments was a forward-looking contribution made by Confederate medical officials."[49] Certainly Stout was an important example of such an official.

Stout was also in charge of another kind of specialized hospital — one for prisoners. In May, 1864, Stout directed Bemiss to Andersonville: "You will make minute inquiry into the condition of the sick in the prison," he wrote, "and report to this office what provisions if any have been made to secure proper attention to them. You will direct Surg. Robertson to open a hospital for the treatment of the sick."[50] Other reports from the camp shed light on conditions at the prison — and on its commanding officer: "I beg you not to forget my reports made to

you after official inspection," wrote Inspector Richardson,

> *I do not believe the written reports contain any allusion to Wirz's mental condition. You will remember that I reflected verbally to you a firm conviction of his insanity and stated that an application for his removal based upon this ground should be forwarded to Richmond. I was unable to obtain any evidence of cruel treatment of the prisoners by Wirz. He was exceedingly profane and rude in conversation but no testimony could be elicited pointing to instances of cruel treatment.*[51]

Establishing the hospital at Andersonville was accomplished by June, though conditions were not the best. In the words of the surgeon-in-charge, the "number of medical officers on duty here is utterly inadequate to perform the duties required of them. There are 1,035 patients in the hospital, with only five medical officers. . . . It is impossible to get tents from the quartermaster in the military department. . . . They seem to have nothing, or act upon the principle that prisoners can do without them."[52]

At one point during the war, the hospital at Andersonville had 1,035 patients and only five medical officers.

In the last year of the war, as tent cloth became scarce and other goods were increasingly hard to find, shortages were evident elsewhere than at prison hospitals. Thus one finds the surgeon in charge of the hospital in Eufula writing that he had just received, without notice, between 200 and 300 wounded men and was "compelled to lay these men, filthy and lousy, upon the floor of the house I have prepared for bunks. . . . I have . . . no pans, no tubs, no spittoons, no medicines, no nurses, no ward masters, no adequate medical assistance, no hospital clothing. . . ."[53] As a postscript, the harried surgeon added that he had just received word to expect another 300 men that evening.

The War's End

The war ended for Stout on a disorderly note which he later recalled in his memoirs. "In the department of Northern Virginia," he observed,

> *the hospitals had never been mobilized. Hence the evacuation of the capitol city of the Confederacy caused complete disorganization of the hospitals so that Genl. Lee's army was without adequate facilities to care for his sick and wounded soldiers. . . . Most of the hospitals in the State of Virginia were scattered to the "four winds" and virtually dismantled. In this great emergency the Surgeon General telegraphed Med. Director Stout to move to Charlotte N.C. with as many of his hospital organizations as he could get transportation for.*

Stout thus began to assemble in Atlanta and elsewhere near railroad depots "numerous hospital organizations with their medical officers, stewards, and detailed and hired nurses, hospital property, records, etc." to await transportation.[54] The surrender occurred before the needed trains arrived; the hospital personnel were released and Stout's hospital organization, which he had worked so hard to develop, evaporated.

Dismantled along with the hospitals was Stout's career as a leading medical figure in the South. At the age of 43, Stout returned to civilian life but not to his former position as a wealthy landowner and leader in the community; his personal wealth had been dissipated by the war. He taught for a short while at the Atlanta Medical College and then returned to Tennessee to be General Superintendent of the Confederate Orphan Asylum in Nashville. The letter requesting his acceptance of this position stated that "it is a big thing and only a man of brains can run it."[55] Within months, however, Stout had resigned, apparently for financial reasons: "With our unqualified confidence in the administrative ability of our chief officer," wrote a trustee to Stout, "his resignation [would be] wholly unacceptable with any reasonable financial prosperity of our institution. . . . But unfortunately this is not the case. . . ."[56] Stout returned to Atlanta and opened a private general practice, and later moved north to Roswell.

Stout remained in Roswell until 1881. He apparently was well thought of by the inhabitants of the town, as this letter written at his departure attests:

> *During your labors with and among us we have conceived a higher estimate of the medical profession and learned the inestimable value of a family physician, and it is with deep regret we part with one whom we have ever found faithful and tender in our times of sickness and trials – whose aim has been to relieve the suffering at all times and in all conditions . . . and whose skill and kindness has soothed our dear ones in their entrance into this world and their exit from it.*[57]

Well thought of or not, Stout did not become rich from his general practice. In 1877, he shared the fact of his financial strain with the U.S. Surgeon General whom he wrote to inquire about appropriations available to help him organize the quantity of records and other documents relating to medical service under the Confederacy that he had preserved since the war. "If such appropriations have been

made," he wrote, "can you suggest any plan by which I can secure subsistence for myself and family while employed in collating my records and writing a history of my hospital department. . . . While believing I am in possession of facts of the greatest interest to humanity, impoverished as I have been, and now eking out a bare subsistence by the laborious practice of my profession among a people ill able to sustain one, I am becoming alarmed . . . lest my life may close ere my work is done."[58] The appropriations were not available. The War Department would not accommodate him, and in a letter dated 1878, the Department informed Stout that it could not pay him $10,000 for his records.[59]

Stout petitioned the War Department for some appropriations to help support him while he collated his records and wrote a medical history of the war, but his request was denied.

In 1881, Stout moved to Cisco, Texas, for the purpose of improving the health of one of his five surviving children. He continued in private practice. He also published a series of articles for the newly-founded *Texas-Courier Record of Medicine*, including a five-part article entitled, "Clinical Lectures from the Standpoint of the Private Practitioner," and several articles of a more scholarly nature on aspects of gynecology. In 1892, after a tornado hit the town, the 71-year-old doctor moved to Dallas. The next decade held an additional accomplishment; he joined the medical department of the University of Dallas as a professor of obstetrics and later served as president of its board of trustees. In 1893, Stout unsuccessfully sought the post of Commissioner of Education under the Cleveland Administration, a move which reflected an interest in public education he had shown both in Atlanta and in Cisco.[60] That same year he published a prefatory article to an intended series of articles describing the history of medical service during the Confederacy. He resumed the series in 1900 and published 23 installments in the *Southern Practitioner* by September, 1903. Stout died September 18, 1903, the series incomplete.

Summary

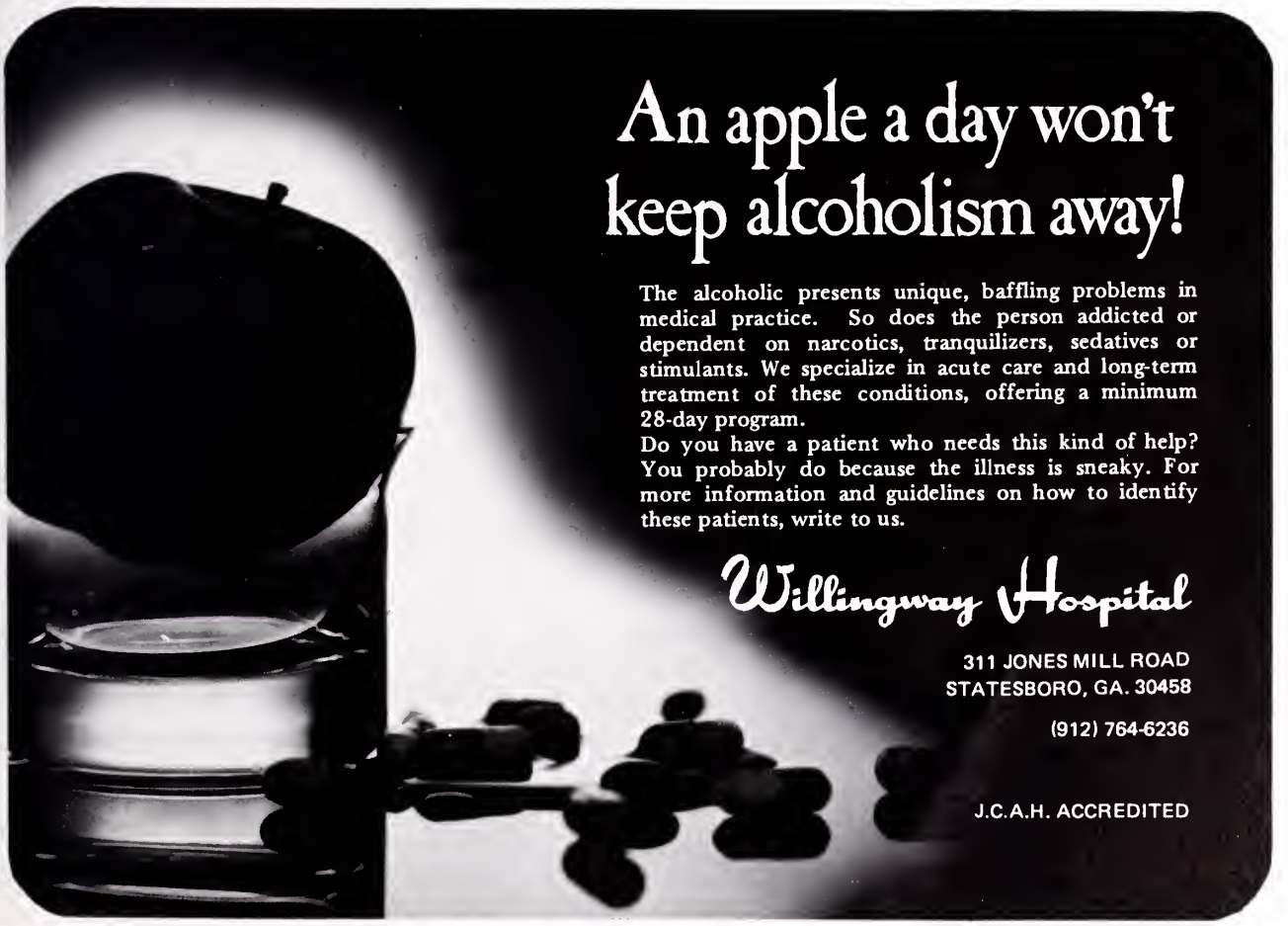
The medical career of Samuel Stout remains of interest not because of its beginning, which was conventional, nor for its end. Its importance lies in his activities during the Civil War. In the 4 years of conflict, this well-trained rural practitioner rose from the command of a single regimental hospital to that of numerous hospitals serving the needs of 22,000 sick and wounded. He owed his rise to an early understanding of the importance of military regulations and to an ability to put them in practice. He also had the talent of choosing capable men as subordinates and the good fortune of coming to the attention of the men who commanded him. Once Stout was in a position of authority, his training and organizational ability led to important innovations in military medical care and practice. He encouraged adequate and effective ventilation, efficient maintenance of medical records, and the successful mobilization of hospital units away from the approaching enemy.

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9. Stout SH. Outline of the organization of the medical department of the Confederate Army and Department of Tennessee, especially the hospitals. Photocopy in Stout MSS., Box 3, p 19-20. Henceforth referred to as "Outline."
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14. Stout SH. op cit, p 280.
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39. Saunders to Stout, July 31, 1864, Stout MSS., Box 2.
40. Stout SH. op cit, p 573.
41. Bemiss was a favorite of Kate Cumming's. In her journal entry for November 13, 1863, she noted "Dr. Bemiss left today. He is going to assist Dr. Stout. We all regret his leaving. To use the phrase of a friend, 'he is a gentleman and scholar, with his heart in the right place.' A more devoted patriot we have not in the cause." *Journal,* p 108.
42. Bemiss to Stout, Jan. 15, 1864, Stout MSS., Box 1.
43. Bemiss to Stout, Sept. 8, 1864, Stout MSS., Box 2.
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45. Draft of letter to Richardson, Mar. 28, 1864, Stout MSS., Box 4. Photocopy.
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An extensive bibliography including works by and about Stout, scientific papers, and other published works on the times is available on request from the author.





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A concise overview of the beneficial results of flexible sigmoidoscopy as compared with rigid sigmoidoscopy.

Flexible Sigmoidoscopy — An Office Procedure

S. K. MOHANTY, M.D., *Danville, Illinois*, and UI HO PARK, M.D., and JANE SWIFT, R.N., *Dublin**

Introduction

ROUTINE DIGITAL examination of the rectum explores only 8 cm. Rigid sigmoidoscope provides access up to 25 cm. of the distal rectosigmoid, but the procedure has several limitations. A comparison between the rigid and flexible fiberoptic sigmoidoscopy was done at the V.A. Medical Center in Dublin in 50 consecutive cases to assess the ease and effectiveness of each instrument. Both instruments are shown in Figure 1.

Materials, Methods, and Results

A total of 50 patients underwent sigmoidoscopy, first by rigid sigmoidoscope (length — 25 cm.) and then by flexible sigmoidoscope (length — 55 cm.). Thus, the patients served as their own control for all parameters. Bowel preparations were done by two Dulcolax suppositories 2 hours before the procedure and 1 Fleet enema ½ hour before the procedure. Preparation was adequate in all but one case. The distance traversed was measured from anal verge. The results are as shown in Table 1 and Table 2. There were no complications. As shown in Table 2 all lesions except in two cases were beyond the reach of the rigid scope.

TABLE 1 — Comparison of Rigid and Flexible Sigmoidoscopy, by Distance Attained and Time Involved

Type of Scope	Distance	Time
Rigid	18.6 cm. (range 10-25 cm.)	3.4 minutes
Flexible	42.6 cm. (range 28-60 cm.)	11.6 minutes

TABLE 2 — Procedures Performed During Sigmoidoscopy, by Distance of Examination

Procedure Performed	Distance
Polypectomy	6 (11, 28, 28, 42, 10, 30 cm. from anal verge)
Biopsy of lesion	2 (28, 55 cm. from anal verge)

Discussion

The rigid scope has several limitations:

(1) In a significant number of cases, it cannot be advanced to its full length because of tortuosity of the bowel. In our series, the 25 cm. advancement was possible in only 62% of the patients.
(2) The vision is restricted because the area is seen through a tube. During polypectomy, no magnification is available.
(3) For a satisfactory examination, a special table is needed when knee-chest position is required. The Sims's position is cumbersome for the operator.
(4) Patient acceptance is considerably less compared with a flexible endoscope.

The 55 cm. flexible scope increases the range of examination up to most of the descending colon. Since the large bowel is telescoped, the length that is examined is often more than 60 cms. Because of this, one of the lesions biopsied in the series was from splenic flexure. The average length of the

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Figure 1 — Both endoscopes — rigid and flexible — are displayed for comparison. A biopsy forceps is inserted through the special channel to demonstrate uninterrupted vision during procedure.

bowel examined by flexible instrument was 42.6 cm. from anal verge (range 28-60 cm.) as compared to 18.6 cm. by the rigid scope (range 12-25 cm.). About 60% of all lesions of the large bowel are located in the distal 25 cm. The flexible instrument surveyed the distal 25 cm. 100% of the time, whereas the rigid scope could be advanced up to 25 cm. only 62% of the time. Two of the three surgeons who previously were not familiar with this instrument learned the technique in a relatively short time, i.e., within the first five procedures working in conjunction with the experienced operator. No special table or bed was needed for this procedure. The patient acceptance judged subjectively was markedly better. The routine preparation used in all cases were satisfactory for both rigid and flexible endoscope and did not require a second examination. The increased duration of the procedure during biopsy and polypectomy was better tolerated with the flexible instrument. Increased magnification and absence of tunnel vision, as in the rigid scope, provided markedly better visualization of the colonic wall.

The advantages of the flexible sigmoidoscope over the rigid one are as follows:

(1) More than 100% increase in the length of the bowel is examined; 70-80% of all colorectal tumors can be detected, approximately twice as many as with the rigid instrument.
(2) The ease of the procedure and increased patient acceptance even when polypectomies and biopsies were carried out; the flexible endoscope has a smaller diameter than the rigid one.
(3) The bowel preparation was the same for both instruments and was carried out in an environment similar to a physician's office without any additional need.
(4) Since in only 62% of the patients could the rigid scope be advanced up to its full length (25 cm), as compared to 100% of the time in the flexible instrument, the often-used statement, ''60% of all lesions of colorectum are within the reach of sigmoidoscope'' really becomes accurate and meaningful.
(5) A brief calculation supports the view that the use of flexible scope increases the cost effectiveness when used for more than 100 procedures.

Colonoscopy, as a procedure, requires a special setting of a hospital and clinic. Considerable formal training and experience is necessary to perform this procedure. The flexible fiberoptic sigmoidoscope (short colonoscope), however, obviates the limitations of the rigid instrument, yet greatly enhances the diagnostic capability over its rigid counterpart. Moreover, its use can be learned easily. For the above reasons, we feel that it can be used in all situations where a sigmoidoscopy is indicated in an office setting.

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

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Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension; changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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See next page for brief summary of prescribing information.

Hyperab®
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DESCRIPTION

Rabies Immune Globulin (Human)—Hyperab* is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine. Hyperab* globulin is a 16.5% ± 1.5 solution of gamma globulin from venous blood in 0.3M glycine, preserved with 1:10,000 Thimerosal (a mercury derivative). Its pH is adjusted with sodium carbonate. The product is standardized against USA Standard Antirabies Serum. The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody.

This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab* should, therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab* globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway, and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab* globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab* is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab* globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab* globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental, or causally related to the gamma globulin.

No instances of transmission of hepatitis B (homologous serum jaundice) have been reported from the use of human gamma globulin prepared by the fractionation methods employed by Cutter Laboratories, Inc.

HOW SUPPLIED

Rabies Immune Globulin (Human)—Hyperab* is packaged in 2-ml. and 10-ml. vials with a potency of 150 International Units per ml. (IU/ml.). The 2-ml. vial contains a total of 300 IU which is sufficient for a child weighing 15 kg. (33 lb.). The 10-ml. vial contains a total of 1500 IU which is sufficient for an adult weighing 75 kg. (165 lb.).

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A lucid description of a case of Hashimoto's thyroiditis accompanied by a sequence of autoimmune-associated disorders.

Hashimoto's Thyroiditis, Pernicious Anemia, Sjogren's Syndrome, and CRST Syndrome — A Case Report

YSSA SAAD-DINE, M.D., RANDAL B. MACURAK, M.D., ERNEST W. BEASLEY, M.D., *and* JOHN A. WARD, M.D., *Atlanta**

THE ETIOLOGY of Hashimoto's thyroiditis is autoimmune. In addition, multiple other features of autoimmunity are frequently associated with this entity. The following is a case report of Hashimoto's thyroiditis, pernicious anemia, Sjogren's Syndrome, and CRST Syndrome.

Report of a Case

The patient was a 56-year-old white man who was admitted to the hospital with a history of coronary artery disease, cutaneous telangiectasia, pernicious anemia, and primary hypothyroidism. He had once had pericarditis which was thought to be Dressler's syndrome. He was discharged on a tapering dose of prednisone and had done well until 1 day prior to a subsequent hospital admission.

The patient had been off steroids for 4 days when he again experienced pleuritic chest pain radiating to both arms. The pain was greatly relieved by sitting up and standing. An echocardiogram (ECG) showed minimal pericardial effusion posteriorly, and the patient had no ECG or cardiac enzyme changes.

Physical examination revealed multiple telangiectases of the face, buccal mucosa, hands, nail beds, and the soles of the feet (Figures 1-3). Examination of the hands showed tight and shiny skin with an amputated distal phalanx of the right ring finger.



Figure 1 — Everted lower lip showing telangiectasia.

In a previous hospital admission, the patient had been diagnosed as having hemorrhagic telangiectasia. This diagnosis was now questioned because his hemorrhagic episodes consisted only of epistaxis, with no family history of telangiectasia, and because of the patient's recurrent pericarditis, with a positive antinuclear antibody (ANA) of 1:320 in a nuclear pattern.

History

The patient stated that his pernicious anemia had been diagnosed in 1958 when he began to experience a sore tongue and continued feelings of tiredness. A bone marrow specimen was obtained and revealed megaloblastic anemia. A Schilling test was compatible with pernicious anemia. He began receiving B-12 injections, and his symptoms abated.

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Figures 2 and 3 — Left and right hands showing telangiectasia.

In August, 1975, the patient was given SSKI for bronchitis. This medication precipitated profound myxedema, manifesting as a deepened voice, facial edema, slow reflexes, and decreased voltage of his ECG. The free T4 by RIA was 0.3, and the TSH was 68 I.U. He was subsequently started on Synthroid, and his hypothyroidism has been controlled since then.

A hardened area subsequently developed on the medial aspect of the patient's right ring finger. It became infected and the infected portion had to be amputated. Further history revealed that the patient had experienced Raynaud's phenomenon when exposed to cold weather. He had also noted that his eyes often felt gritty and that his mouth always seemed to be quite dry, so he drank large amounts of water.

Family History

The patient's father had had pernicious anemia, and he subsequently died of Addison's disease. He had circumscribed areas of white skin and prematurely white hair in patches. The patient's sister has a small goiter.

Hospital Course

At the time of admission, the patient was taking Digoxin 0.25 mg; L-thyroxin 0.1 mg; Propranolol 40 mg every 6 hours; 1 inch of nitroglycerin ointment every 4 hours; and sublingual nitroglycerin as needed for chest pain. TSH was 11.1 I.U./ml (normal 0-10). The patient had normal T3 resin uptake at 29% (range 25-35) and normal total T4, 5.8 g/dl (range 4-11). Antithyroglobulin antibodies were positive at 1:25,600 and antimicrosomal antibodies were positive at 1:49,600. Westergren erythrocyte sedimentation rate was 12 mm/hr (normal 10-20). Rheumatoid factor and anti-DNA examinations were negative. A lupus erythematosus (LE) prep showed a moderate number of cells resembling LE cells. Pulmonary function studies were within normal limits. Serum protein electrophoresis was reported as follows: IgA 71 mg/100 ml; IgG 231 mg/100 ml; IgM 214 mg/100 ml. This was interpreted as indicating a slight increase of IgA in a "polyclonal pattern."

The patient was seen by ophthalmologists who conducted a Schirmer test. It showed abnormal results which were indicative of keratoconjunctivitis sicca. An electromyogram and nerve conduction studies showed both motor and sensory peripheral neuropathy.

The x-ray of the patient's finger prior to amputation (Figure 4) was reviewed by the rheumatology



Figure 4 — Radiograph of right hand revealing calcinosis circumscripta of the ring finger.

and radiology departments. Their findings were compatible with calcinosis circumscripta.

A barium swallow showed no evidence of hypomotility diagnostic of scleroderma but did reveal a small hiatal hernia. A barium enema revealed nothing abnormal, and repeated urinalyses revealed no protein or cellular elements.

An adrenocorticotropin stimulation test with synthetic ACTH was performed. The baseline cortisol level was 12.0 g/dl; 30 minutes after ACTH infusion it increased to 28.0 g/dl, and after 60 minutes to 37 g/dl (normal increase over 30). Testosterone level was 273 ng/dl with an LH of 19 I.U./ml (normal 7-24) and FSH of 14 I.U./ml (normal 4-25).

It is of note that the patient also has symptomatic coronary atherosclerotic heart disease, and had documented myocardial infarctions in 1969, 1971, and 1976.

The patient continues to visit the endocrine clinic for treatment of his thyroid disease, with special consideration being paid to the possibility of the development of Addison's disease.

Discussion

The present case illustrates a constellation of disorders with autoimmune implications. Many authorities consider the CRST syndrome to be a variant of progressive systemic sclerosis. While the role of autoimmunity in the pathogenesis of progressive systemic sclerosis has not been proved, it is considered to be an autoimmune disease. As in the present case, progressive systemic sclerosis has been associated with Sjögren's syndrome and Hashimoto's thyroiditis.[1] Other immune manifestations which have been reported with progressive systemic sclerosis include positive rheumatoid factor, positive LE preparations, positive ANA tests, false-positive serologies, and hypergammaglobulinemia.[1]

Telangiectasia of the CRST syndrome mimics those of hereditary hemorrhagic telangiectasia (HHT). This patient was believed to have had HHT until the autoimmune aspects of his case suggested other autoimmune disorders. The family history of no telangiectasia, and the patient's own history of no gastrointestinal bleeding suggested that this was not HHT but another disorder manifested by the telangiectasia. The history was compatible with Raynaud's phenomenon, and the physical examination was compatible with sclerodactyly. In addition, the previous x-ray of the hand was compatible with calcinosis circumscripta.[2] Winterbauer has discussed the differential features of HHT and the CRST syndrome.[3]

Autoimmunity has been implicated in different endocrine gland failure. The thyroid, for example, shows a lymphocytic infiltration of the parenchyma, and frequently there are measurable thyroid autoantibodies in the serum. The relatives of patients with Hashimoto's thyroiditis experience an increased incidence of pernicious anemia, juvenile diabetes, myasthenia gravis, and rheumatoid arthritis.[4]

Tudhope and Wilson reported an incidence of about 10% of pernicious anemia in patients with hypothyroidism.[5] The clinical association of autoimmune thyroid disease and atrophic gastritis has been well documented by Irvine.[6]

This case illustrates a sequence of autoimmune-associated disorders beginning with Hashimoto's thyroiditis, pernicious anemia, and CRST and Sjögren's syndromes. Autoimmunity in this patient is suggested by the fact that his father had pernicious anemia and eventually succumbed to adrenal cortical insufficiency.

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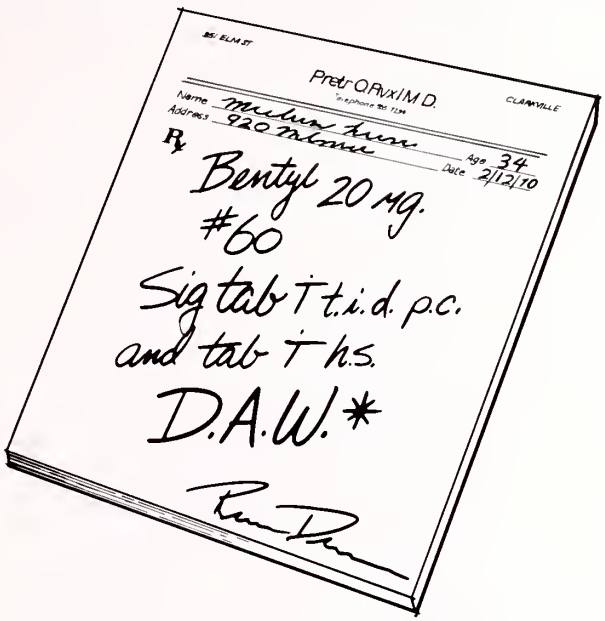
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Brief Summary

INDICATIONS
Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:
For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.
For use in the treatment of infant colic (syrup).
Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and/or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.
Use with caution in patients with:
Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.
Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.
Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/ antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.
Usual Dosage
Bentyl 10 mg. capsule and syrup: *Adults:* 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children:* 1 capsule or teaspoonful syrup three or four times daily. *Infants:* ½ teaspoonful syrup three or four times daily. (Dilute with equal volume of water.)
Bentyl 20 mg.: *Adults:* 1 tablet three or four times daily.
Bentyl Injection: *Adults:* 2 ml. (20 mg.) every four to six hours intramuscularly only.
NOT FOR INTRAVENOUS USE.

MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of July, 1980

Injectable dosage forms manufactured by
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Human Nature and Economic Prosperity

Successful businessmen are students of human nature. We in business long ago realized that self-interest is the overriding concern of most people, and successful business enterprises are structured to take advantage of this fact. Incentive bonus plans, stock option plans, and other forms of organizational motivation are based on this self-interest philosophy.

Unfortunately, people who do not deal with this truth every day sometimes tend to forget this principle. Governments, which have allowed their countries to rise to economic power through allowing individual self-interest to function, often tend — over time — to dull these incentives through policies that attempt to equalize individual prosperity.

In America today, there seems to be a rediscovery of this principle occurring after several decades of languish.

My generation was raised with Keynesian dogma as the prominent economic theory. John Maynard Keynes believed that insufficient aggregate demand was the cause of unemployment and that government deficit spending was its cure. His "General Theory" in 1936 launched an era of government deficits and economic tinkering culminating in rising inflation rates, stagflation, and controls.

Last November, the American people — who can always be counted on to vote their self-interest — sent a clear signal to their political leaders. While it is doubtful more than a very small percentage of the electorate had ever read Keynes' "General Theory," it is certain most people were demanding a change in the way government uses their tax dollars to finance itself.

What had gone wrong with the Keynesian approach? In recent years, a new wave of young economists has been publishing convincing research suggesting that Keynes' entire premise may have been faulty. Keynes was attacking a high unemployment rate in Britain in the early thirties, but he may have misread the cause of the unemployment. In a well-documented 1979 research paper in the prestigious *Journal of Political Economy*, scholars Daniel Benjamin and Levis Kochin confidently stated, "the army of unemployed standing watch in Britain at the publication of the 'General Theory' was largely a volunteer army." The army of unemployment was not created by lack of aggregate demand, but was pulled into service by unprecedented high unemployment benefits enacted after World War I. Human nature at work!

The American people's desire for change expressed in the November election reshaped Congress as well as the Executive Branch. Many of the newcomers to Washington have expressed dissatisfaction with Keynesian doctrine and are urging a new concern for the supply side of the economic equation. They support the sensible notion that people respond to the specific incentive of price and supply behavior, and that, given the right incentives, the market is better equipped than government to bring about lower prices and more supplies of what people want and need. This is a return to policies that take advantage of human nature.

Influenced by a new breed of economists like Arthur Laffer, these lawmakers are articulating the common-sense doctrine that allowing individuals to make decisions in their own self-interest will improve aggregate economic prosperity. Laffer has given his name to the Laffer Curve, which suggests that all civilizations will eventually self-destruct if they gradually over-tax the producers and dole benefits to the non-producers, because they destroy the incentive to produce.

Let's apply our lesson in human nature to the Medicare law that was passed in 1964. This legislation immediately increased the demand for health care services, including hospitals, and paid for it on a cost-plus basis. In other words, the more it cost a hospital to produce its service, the more the government paid for it. Can you guess what happened? Costs went up — and the government seemed surprised.

Of course, this is an oversimplification. Health care costs, including hospital costs until recently, have been rising at a rate above the general inflation rate for several years, and this continues to be a legitimate concern for all of us.

. . . given the right incentives, the market is better equipped than government to bring about lower prices and more supplies of what people want and need.

There are several reasons for this. One is the cost-plus payment mechanism just mentioned. Another factor is the relative lack of competition (largely legislated) in the hospital industry. It is also true that about 90% of all hospital services are paid by someone other than the patient (for example, Medicare, Blue Cross insurance, etc.), and the patient does not associate the cost of the hospital stay with his own cost at the time he uses the services. Of course, he eventually pays for them through increased insurance premiums or benefits negotiated by his union with companies providing for hospital care. Most hospital insurance plans do not have a co-insurance feature, i.e., the patient does not pay a portion of his cost, and the entire payment is paid by the insurance company.

Additionally, technology in health care is increasing rapidly. Life-saving procedures such as kidney dialysis, coronary care monitoring equipment, and computerized tomography (CT) scans are constantly being improved. But these marvelous machines are expensive, and they have helped focus attention on the health care system in America — unfortunately, perhaps as much for rising costs as for the delivery of excellent services and results.

Congressional deliberations on national health policy in the Carter Administration provided an interesting indication of the changing national mood. Congress twice rejected White House attempts to single out hospitals as the cause of rising health care costs. The Administration had sought to impose arbitrary cost controls on hospitals. Congress voted down the proposals both times, reflecting its constituents' realization that rising costs of all kinds are more a symptom of underlying inflationary government policies than a cause of inflation themselves.

Congress saw hospital cost controls for what they were: not just price controls on services offered by a hospital, but controls on the total expenditures of hospitals — controls that would limit services as well as prices and, in effect, ration health care.

Also, the fact is that doctors, not hospitals, order health care services. The hospital merely delivers the product of care ordered by the physician. Hospitals have no way to control physician utilization under our existing health care system. A student of human nature might point out that while most people are interested in controlling health care costs in the abstract, when they become sick themselves, they feel a great desire to get well no matter what the cost.

There were, of course, other inconsistencies in Carter's solution — non-efficient, high-cost hospitals would have received permission to increase their expenditures at a greater rate than the low-cost, efficient hospitals — but the basic fault lay in the philosophical design of the structure. The best approach lies in rethinking our whole delivery and payment system — with human nature in mind.

American health care is thought by most people to be the best in the world. It is also dramatically improving year by year. For example, 35 percent fewer people died in 1978 after being admitted to hospitals with heart attacks than in 1964. According to the National Center for Health Statistics, the mortality rate in the United States decreased 3.1 percent in 1979 to an all-time low of less than six people per thousand. Since 1960, the death rate has declined nearly 23 percent.

Even more telling, life expectancy for Americans over thirty — the years in which hospital care has the most impact — is the longest in the world, more than 46 years. Americans are not going to take tampering with their system lightly.

Looking abroad, Britain's National Health Service has had to deny life-saving medical procedures such as kidney dialysis to certain people because of their prohibitive cost. In Sweden, some in the health care system quietly made the decision a couple of years ago not to provide certain operations to its elderly population on the basis of economics. In both Britain and Australia, the governments are quietly encouraging the development of private hospitals — many of which will be owned or managed by America's growing investor-owned hospital industry — somewhat contradicting their total national health service philosophies. Charter Medical Corporation, for example, recently opened the largest private psychiatric hospital in central London.

What can we do to help cure the problem? I think we should attack the source of the problem and try to change the factors that have caused the increased cost, rather than leave these undisciplined and impose arbitrary controls through bureaucratic regulation.

Fortunately, this solution is finally beginning to make headway among our national leaders. When he was in the Senate representing Pennsylvania, Richard Schweiker (R), the new Secretary of Health and Human Services in the Reagan Administration, introduced legislation that would strip away some of the insulation between the consumer and his or her medical costs. David Durenberger (R-Minnesota), chairman of the Subcommittee on Health in the new Senate, sponsored a similar bill.

In the House of Representatives, Jim Jones of Oklahoma, an influential majority member of the revamped Ways and Means Committee, previously had introduced a bill that would have denied business tax deductions for health insurance policies unless they contained a 25 percent consumer co-payment provision for hospital bills.

Proposals such as these — which are bound to resurface in the new Congress — are much preferable to simplistic cost containment legislation that would create massive and inefficient bureaucracies. However, not enough work has been done analyzing other opportunities in this area. Working to lower prices and make services more efficient through competition has been a radical proposal for the health care sector, although it is the key ingredient in a free enterprise economy.

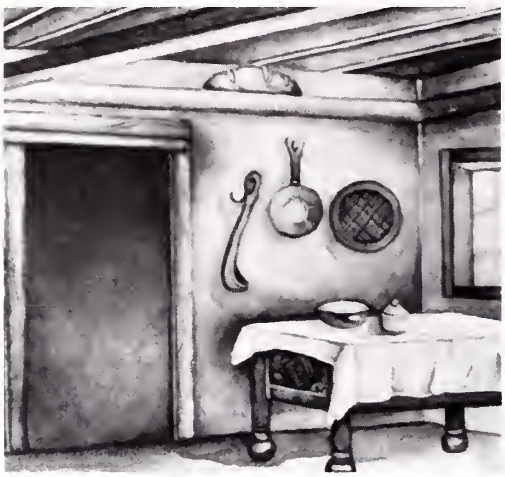
There are basically two ways to address a national goal. We can let the government do it, along with its regulations, bureaucratic bumbling, and inefficiencies; or we can structure a program — using human nature as an ally — that allows the free market and individual self-interest to function. This is a basic truth applicable to health care, the oil crisis, or poverty programs. (Our World War II mobilization program floundered until the government decided to allow business to participate and make a profit.)

Free enterprise and competition must be part of a national health system if it is to be affordable to all Americans now and in the future. An institutional program structured to take advantage of the individual's interest in looking after his personal economics and security is more likely to succeed than one structured to override this basic tenet of human nature.

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1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy

‡Not all isolates may have been tested using both discs

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Brief Summary of Prescribing Information
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INDICATIONS:
Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)
Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE
When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.
Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.
Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.
Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:
A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING:
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.
There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.
Safety for use in pregnancy has not been established.

PRECAUTIONS:
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.
As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:
Adults, 250 mg. q.6h.
Children, 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.
N.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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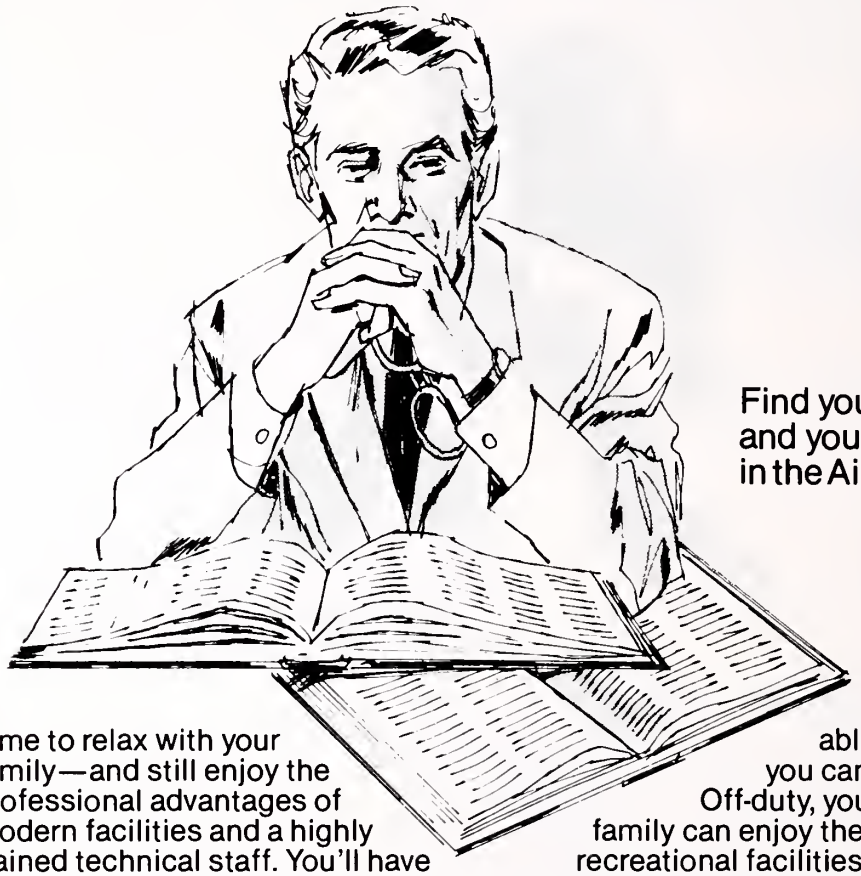
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Advertising by Professionals: Implications for Georgia Physicians

ROBERT C. LEWINSON, *Atlanta**

PUBLIC ADVERTISING by physicians has long been taboo within the medical profession. Ever since adopting its first *Code of Ethics* in 1847, the American Medical Association (AMA) has proscribed such advertising by its members,[1] whether the prohibition be absolute, as it was under the 1847 Code, or more limited in scope, as is characteristic of more recently promulgated canons of medical ethics. Advertising has essentially been regarded as stooping to the commercial mores and practices of the marketplace, and therefore regarded as undignified and unprofessional. Especially is this true with respect to advertising fees, since it has been thought that this would encourage people to "bargain shop" for medical care instead of making a decision on the basis of a doctor's reputation for high quality of care. Additional concerns raised in defense of the traditional position on advertising are that some physicians, in order to meet price competition, might compromise quality, availability, or other key features of the services they provide, and that the cost of advertising might well have the counterproductive effect of increasing the cost of medical services. Other professions — not the least among which includes lawyers — have shared and similarly institutionalized their opposition to advertising.

It is perhaps a phenomenon of our increasingly consumer-oriented society that the courts in recent years have formally recognized a public interest in the dissemination of commercial information sufficient to enable people to make informed choices about professional services. The anticompetitive effects of prohibiting the advertising of fees have come under closer scrutiny as well.

A three-fold danger awaits efforts by professional organizations to restrict advertising by their respective members. Ethical standards and disciplinary rules seeking to accomplish this result may be (1) subject to challenge as unconstitutional infringements on the freedom of "commercial speech" under the First Amendment; (2) construed as unreasonable restraints of trade under the Sherman Antitrust Act; or (3) challenged as unfair methods of competition in violation of Section 5 of the Federal Trade Commission Act (FTCA).

In this article, I will first discuss the major U. S. Supreme Court decisions regarding professional advertising. Secondly, I will summarize the recent decision by a U. S. Court of Appeals upholding a Federal Trade Commission (FTC) order directly relating to the AMA's enforcement of its ethical restrictions on physician advertising. Finally, I will conclude with a few remarks concerning the implications of these cases for physicians in Georgia.

* Prepared at the request of the Medical Association of Georgia. Mr. Lewinson is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

Advertising and the First Amendment

The right to advertise and the reciprocal right of the public to receive such information has been accorded limited protection under the First and Fourteenth Amendments of the U. S. Constitution as "commercial speech." In 1976, the U. S. Supreme Court decided the case of *Virginia Pharmacy Board v. Virginia Consumers Council,*[2] which held for the first time that ethical principles which proscribed advertising by professionals were unconstitutional.

The target of the plaintiff consumers organization was a Virginia statute declaring it to be unprofessional for a pharmacist to advertise or otherwise promote "any amount, price, fee, premium, discount, rebate, or credit terms . . . for any drugs which may be dispensed by prescription."[3] In holding for the Consumers Council, the Court explained that the right to receive information and ideas was a necessary corollary of the freedom of speech. Consequently, to the extent that the right to advertise was constitutionally protected as commercial speech, there must also be protected a corresponding right to receive the information communicated through advertising. (The Court's recognition of a right to receive commercial speech was significant, since the plaintiff was a consumers' group interested in obtaining data which the statute kept from being disseminated rather than a pharmacist disciplined for advertising.)

When balanced against the public interest in receiving information pertinent to deciding where to purchase prescription drugs, the justifications advanced by the Pharmacy Board were found wanting. For instance, the specter of pharmacists cutting corners to compete if they were permitted to advertise prices was dismissed out of hand: any pharmacist who endangered the health of his customers by indulging in such practices would be subject to professional discipline on grounds wholly independent of the advertising issue. In any event, the ban on advertising prices did nothing to prevent the cutting of corners by those pharmacists already inclined to do so. All it accomplished was to shelter pharmacists from price competition.

Although the Court initially expressed some hesitation about extending constitutional protection to advertising by members of the so-called "learned professions" (e.g., lawyers and doctors), this reluctance was overcome in the landmark case of *Bates v. State Bar of Arizona*[4] decided in 1977. In that case, the Supreme Court struck down an Arizona law preventing lawyers from publicizing themselves or their firms "through newspaper or magazine advertisements . . . telephone directories or other means of commercial publicity. . . ."[5] Specifically, the Court held it to be an unconstitutional infringement on the freedom of commercial speech to use professional ethical standards to prevent a lawyer from advertising fees for initial consultations and routine legal services.

The principles at work in the *Bates* case were much the same as those in the *Virginia Pharmacy Board* case. The Court rejected arguments that advertising would taint a lawyer's professional dignity, that advertising expenses would increase the cost of legal services, and that the public was not sophisticated enough to appreciate the inherent limitations of advertising by lawyers. Instead, the Court emphasized that allowing advertising would "facilitate the process of intelligent selection of lawyers, and . . . assist in making legal services fully available."[6] Furthermore, the Court categorically stated its unwillingness to be persuaded by "any justification that is based on the benefits of public ignorance."[7]

Advertising and the Sherman Act

In addition to the possibility of being challenged on constitutional grounds, ethical standards which prohibit or restrict dissemination of price and other information by doctors and other professionals may also run afoul of the antitrust laws. In *National Society of Professional Engineers v. U. S.,*[8] the Supreme Court upheld a lower court injunction against an ethical canon promulgated by the National Society of Professional Engineers which, although not dealing with

advertising *per se,* prohibited member engineers from discussing fees for their services prior to the selection of an engineer by the customer. In effect, the canon prohibited competitive bidding. The Court held that the anticompetitive effects outweighed the proffered justifications for the prohibition. The Court again rejected the now familiar corner-cutting defense: even if some lower-quality workmanship resulted from the pressures associated with unrestrained competitive bidding, it was for the customer to decide whether price or quality was the paramount consideration instead of being bound by a judgment imposed by the Society upon those who utilize engineers' services.

Advertising and the FTC

The third potential pitfall for restrictions on professional advertising is FTCA §5, which confers upon the FTC authority to prevent and remedy unfair methods of competition. In view of the October 7, 1980, decision by the U. S. Court of Appeals for the Second Circuit in *American Medical Association v. FTC,* this type of challenge is of special and immediate concern to the medical profession.

The Second Circuit upheld a 1979 FTC order requiring the AMA and constituent organizations to cease and desist from:

> [r]estricting, regulating, impeding, declaring unethical, interfering with, or advising against the advertising or publishing by any person of the prices, terms or conditions of sale of physicians' services. . . .[9]

The FTC had ruled that the AMA's use of its ethical rules and threats of professional discipline to restrain advertising by member physicians had the effect of fixing prices and frustrating competition.

The affirmation of the FTC order came despite changes in the official interpretation of the AMA's *Principles of Medical Ethics* made subsequent to the FTC's investigation of the medical profession's position on advertising. Specifically, the AMA revised its official interpretation of *Principles* in 1977 to allow limited advertising — including fee advertising. Yet the Second Circuit ruled that the modifications were insufficient to assure compliance with the FTC order. One reason given by the Court was that the ban on solicitation in the *Principles* was left intact, "and the definition of that term incorporates many of the catchwords of earlier restraints."[10] In July, 1980 — after the appeal was argued, but before it was decided — the AMA House of Delegates adopted a new *Principles of Medical Ethics* which, among other things, eliminated the offending ban on solicitation. What effect, if any, this change will have on the pending appeal before the U. S. Supreme Court is unclear.[11] No official and authoritative interpretation of the new *Principles* has been published as of yet.

Limitations on Professional Advertising

As intimated above, the constitutional protection to which commercial speech is entitled is limited rather than absolute. Whatever the benefits may be of disseminating and receiving information which enables people to choose intelligently from among available professional services, there is no public interest in permitting false, misleading, or deceptive advertising. Consequently, the cases have uniformly recognized that such advertising may be subject to reasonable regulation. Indeed, the cases suggest that certain types of advertising which may be likely to be misleading because of the inherent difficulty of verification — such as representations about the *quality* of professional services — are probably beyond the scope of constitutional protection.

Consonant with the notion of professional independence, professional organizations like the AMA and its affiliates have a special, acknowledged role in regulating the conduct of their own members. Since it is generally the responsibility of such organizations to investigate allegations of unprofessional conduct and, where justified, to recommend, to pursue, and sometimes themselves, to mete out sanctions, determinations as to what constitutes false or deceptive advertising are left to

these organizations in the first instance. Such a role was expressly reserved to the AMA by the Second Circuit, which modified the FTC order to permit the promulgation and enforcement of ethical standards regarding representations made by member physicians in the context of advertising which the AMA "reasonably believes to be false or deceptive" under the FTCA.[12]

Prospects for Physician Advertising in Georgia

Statutory law in Georgia reflects the disfavor with which physician advertising has traditionally been regarded. Section 84-916(a)(6) of the Georgia Code[13] authorizes the Composite State Board of Medical Examiners to refuse to license or to discipline a Georgia physician who advertises for or solicits patients. (This statutory prohibition is broader in scope than AMA ethical standards insofar as it applies to all physicians practicing in Georgia and not simply to those who are members of the AMA or one of its affiliates.) Considering the foregoing discussion, such a statute is at least arguably out-of-step with the protection accorded professional advertising by such cases as *Virginia Pharmacy Board* and *Bates*, even if discipline is discretionary rather than required in instances where a physician advertises. As the FTC case seems to indicate, there is little reason to expect that the courts will treat physicians in a substantially different way than they have other professionals. Barring a stunning reversal of the Supreme Court's position on professional advertising, the future is likely to bring considerably more opportunity for physicians to advertise than has been permitted in the past.

Footnotes

1. *See, Percival's Medical Ethics*, App. III at 226 (C. Leake ed. 1927).
2. *Virginia Pharmacy Board v. Virginia Consumer Council*, 425 U.S. 748 (1976).
3. Ibid. 749-750.
4. *Bates v. State Bar of Arizona*, 433 U.S. 350 (1977).
5. Ibid. 355.
6. Ibid. 377.
7. Ibid. 375.
8. *National Society of Professional Engineers v. U. S.*, 435 U.S. 679 (1978).
9. *In the Matter of The American Medical Association, et al.*, Docket No. 9064, Final Order of the Federal Trade Commission (October 12, 1979).
10. *American Medical Association, et al. v. FTC*, Antitrust & Trade Reg. Rep. (BNA) No. 984 at G-4.
11. Interestingly, the Supreme Court in the *Bates* case (dealing with the ethical code applied to attorneys) pointed to the revised 1977 guidelines for physician advertising as an example of the more enlightened approach to advertising being taken by some kindred professions. *Bates*, 433 U.S. at 369, n.20.
12. Ibid. G-6.
13. Ga. Code Ann. §84-916(a)(6).

SOUTHERN REGIONAL CONFERENCE ON EMERGENCY AND CRITICAL CARE MEDICINE

May 20-22, 1981
Huntsville Hilton/Von Braun Civic Center
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This conference will provide the emergency department and primary care physician with an in-depth discussion and thorough review of major problems associated with the multi-system injured patient. The presentations will focus on initial assessment and contemporary treatment modalities with a special session addressing legal vulnerability in the clinical setting. Lectures are supplemented by clinical case presentations to illustrate approaches to commonly encountered problems. A distinguished guest faculty is participating in the seminar, and a comprehensive written course syllabus will be provided. The program is sponsored by the North Alabama Emergency Medical Services agency and co-hosted by The University of Alabama School of Medicine, Huntsville Program, The Alabama Chapter of the American College of Emergency Physicians, The American Trauma Society, and The Alabama Committee on Trauma. The program has been approved by the AMA, AAFP, and ACEP for 18 Category 1 Credit Hours. For further information, contact Mr. Steven Hall, Administrator, North Alabama EMS, Inc., Box 2104, Decatur, Alabama 35602 — PH: (205) 353-3800.

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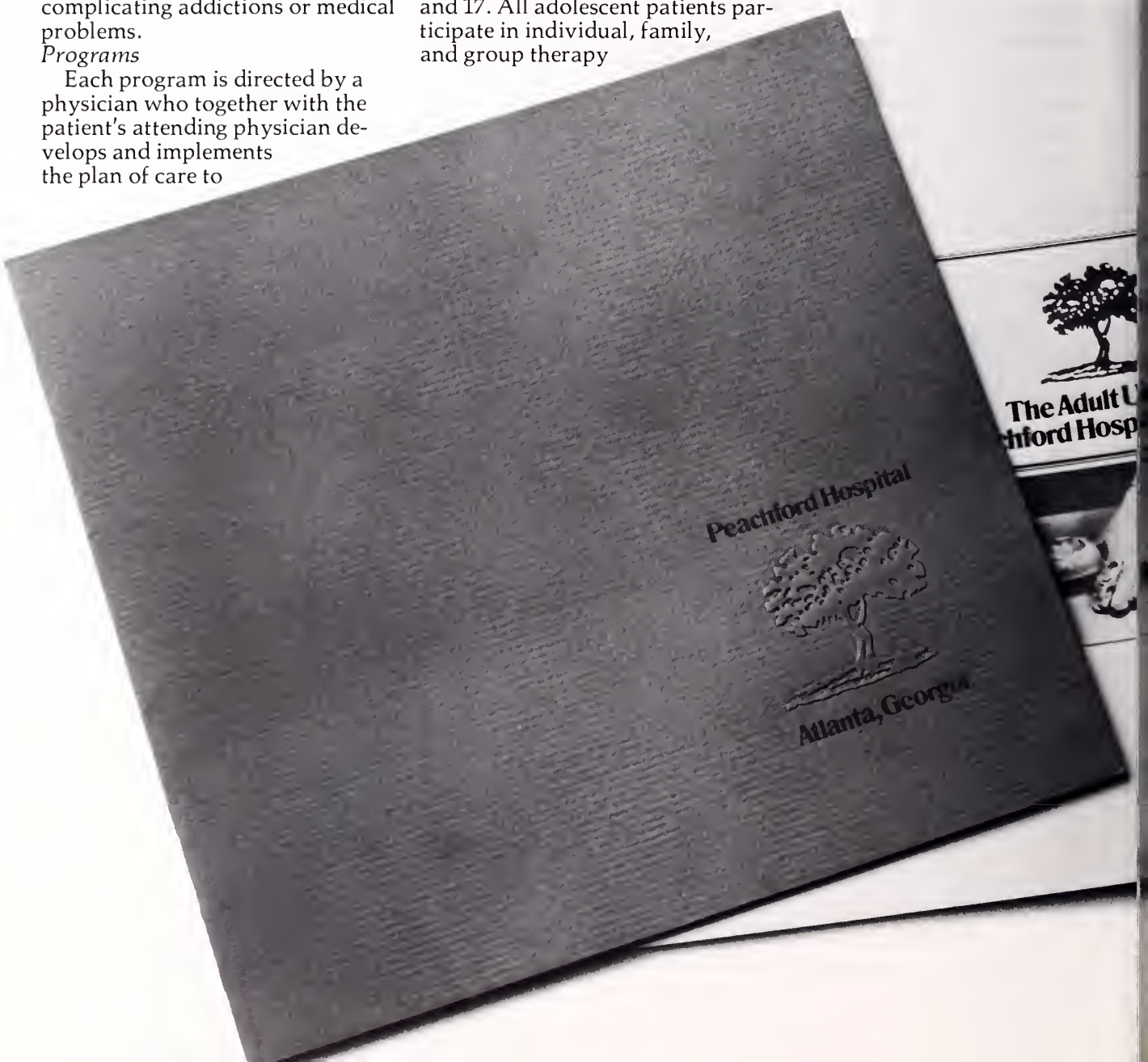
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Each program is directed by a physician who together with the patient's attending physician develops and implements the plan of care to meet the needs of each patient on an individualized basis.

Adult Psychiatric Program — provides a structured therapeutic milieu approach with multiple teams of up to 13 patients each for individuals 18 years of age and older. Individual and group therapies are conducted daily, with activities therapy and clinical social work services scheduled throughout the week.

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rious problems.

ıd group therapy sessions, as well
individualized programs for edu-
ıtion, activities therapy, develop-
ental play, and social services.
rt, dance, music, occupational,
ıd recreation therapy are vital
›mponents of the program.
arents are involved in family
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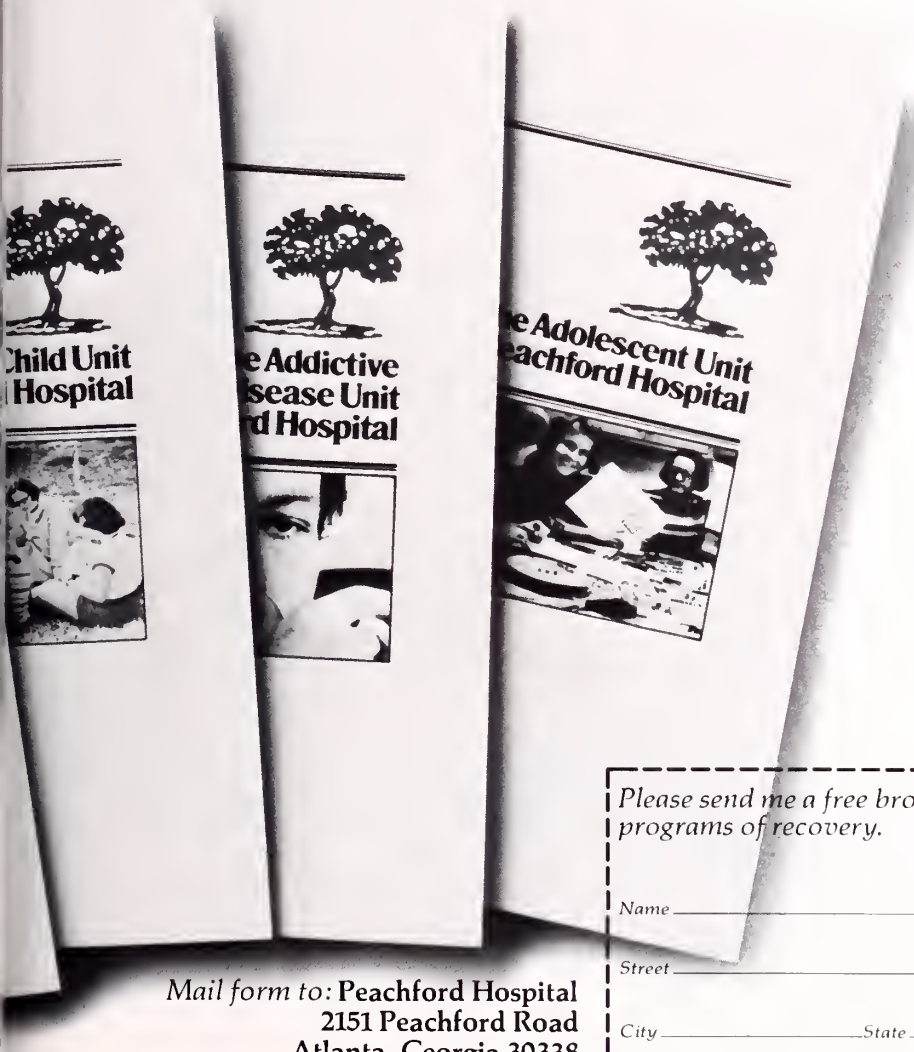
The hospital has an open medical staff including psychiatrists, other medical specialists and allied professionals. Separate committees supervise the children's program, adolescent program, adult psychiatric program and the alcohol and drug abuse unit.

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heart page
heart page
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Evaluation and Management of Ventricular Premature Depolarizations

SITARAM G. KADEKAR, M.D., and MARTIN J. FRANK, M.D., *Augusta**

IT IS NOT UNUSUAL to record a ventricular premature depolarization (VPD) on a routine office electrocardiogram (ECG). In fact, about 0.8% of asymptomatic adults have VPDs during routine ECGs. VPDs may be seen in a setting of coronary artery disease, cardiomyopathy, myocarditis, mitral valve prolapse, valvular lesions, and even in the absence of overt cardiac disease. Yet they occur more frequently with advancing age and in the presence of coronary artery disease. A routine ECG monitors a patient for about 1 minute and and uncovers only 10-14% of patients with VPDs in contrast to 88% with 24-hour ambulatory ECGs.

Who Should Be Monitored and Why

A patient with even one VPD during a routine ECG can be expected to have over 1000 VPDs in 24 hours if this frequency is representative. There appears to be more than a four-fold increase in the risk of sudden death in patients with coronary disease and VPDs discovered during a routine ECG. Hence, it is important to study such patients with a 24-hour Holter recording. Ambulatory monitoring is also an important noninvasive tool to document arrhythmias in patients who complain of palpitations, recurrent syncopal spells, and chest pain unrelated to exertion but which are felt possibly to be of cardiac origin. One can also use this method to analyze the efficacy of antiarrhythmic agents. In one study, patients having frequent or complex VPDs (multiform, pairs, or salvos or the R on T phenomenon) during the late post infarction period had four times the incidence of sudden death compared with patients with no or infrequent VPDs. Hence, it is important to have a Holter recording in patients who have had an infarction prior to discharge from the hospital.[1]

Analysis of Arrhythmia

A dual channel Holter recorder greatly facilitates the distinction between supraventricular rhythm disturbances with aberrancy and VPDs. These are usually graded using Lown's classification.[2] Grade 0 = no VPD; Grade I = occasional, isolated (less than 30/hr); Grade II = frequent (more than 30/hr); Grade III = multiform; Grade IV = repetitive A-couplet, B-Salvos; Grade V = R on T (R-R′/QT = <1). In addition, the average hourly count over 24 hours is useful in comparing sequential periods of monitoring. It is our practice when interpreting a

* Dr. Kadekar is Assistant Professor of Medicine, Section of Cardiology, and Dr. Frank is Professor of Medicine and Chief of the Section of Cardiology, Dept. of Medicine, Medical College of Georgia (MCG), Augusta, Ga 30912. Send reprint requests to Dr. Kadekar. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Miltiadis Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

24-hour Holter recording to list the number of hours in which the various grades of VPD's are found, as well as the number of events for the complex forms.

Who Should Be Treated

Mere presence of a VPD is not an indication for treatment. The decision regarding treatment depends on analysis of the following: (1) symptoms resulting from arrhythmia, (2) underlying cardiac abnormality, and (3) frequency and severity of the symptoms.

A young patient who is aware of "skipped beats" and who has only an occasional VPD may require no more than reassurance and moderation in his use of coffee, alcohol, cola drinks, and tobacco as compared to a patient with frequent palpitations, chest pains, or syncopal spells secondary to an arrhythmia. However, a patient with complex VPDs (multiform, pairs, or salvos) requires treatment even when asymptomatic in an attempt to prevent sudden cardiac arrest. Patients with complex ventricular arrhythmias usually have multivessel coronary artery disease with severe proximal lesions, abnormal LV wall motion, and a low ejection fraction when compared with those with few or no VPDs.[3]

An asymptomatic patient with mitral valve prolapse and frequent or complex VPDs with good LV function and no evidence of coronary artery disease probably does not require treatment unless there are multiple salvos of VPDs. Such a patient is certainly not at the same risk as a patient with a similar frequency of VPDs and multi-vessel coronary disease with poor left ventricular function. Analysis of both the type of VPDs and the setting under which they occur are important when considering risk of sudden death.[1] Thus, complex VPDs which occur at peak exercise or during emotional stress deserve particular attention. One group reports a 30% recurrence of cardiac arrest in one year in those surviving the pre-hospital phase.[4] Absolute proof, however, that the successful treatment of frequent and complex VPDs prolongs life is lacking except in patients *during* acute myocardial infarction. Moreover, it is not certain if the presence of VPDs increases the risk of sudden death in the absence of structural heart disease. From this, it appears reasonable to treat symptomatic patients and those with frequent complex VPDs and coronary artery disease or cardiomyopathy (in particular hypertrophic cardiomyopathy) with the hope of alleviating the symptoms and possibly avoiding sudden death. Simple VPDs in the asymptomatic patient or those with minimal symptoms require no drug therapy.

Aim of Treatment and Selection of Drugs

Before considering the treatment of VPDs, it is important to know what is normal. One study of 50 clinically normal medical students showed that 50% had VPDs, and one of these had more than 50 VPDs in 24 hours. Another study of 100 bonafide normal subjects concluded that 100 VPDs in 24 hours with no more than five in any given hour may be used as an indication of the upper limits of normal. Since there is a significant spontaneous variation in the frequency of VPDs over any given monitoring period, it may be difficult to assess the efficacy of therapy. A drug should be considered maximally effective only if it abolishes all repetitive forms and reduces the hourly count by at least 50%. It is also important to recognize that antiarrhythmic drugs may be arrhythmogenic themselves, e.g. quinidine is so in 17% of patients and the remaining commonly used drugs are arrhythmogenic in about 6.5%. Complications due to the provocation of more severe rhythm disturbances can be avoided by telemetry monitoring during a loading dose. Most antiarrhythmic agents do not reach a steady-state therapeutic level until 3-4 days following initiation of therapy, and they require a serum potassium level in the upper normal range for maximal effect. Hence, it is important to obtain another ambulatory monitoring study along with a measurement of serum potassium at that time. An alternative method for determining drug efficacy is to continue ambulatory monitoring during a period of acute drug testing which utilizes a loading dose,

approximately twice the maintenance dose. Only drugs with demonstrated efficacy should be continued. Serum levels of the antiarrhythmic agent determine whether one is dealing with primary drug failure or an inadequate unit dose.

Antiarrhythmic drugs that are currently available (FDA approved) include quinidine, disopyramide, procainamide, phenytoin, propranolol, and digitalis. Other antiarrhythmic agents, including slow calcium channel blocking drugs, may soon be available. Most antiarrhythmic drugs, in particular disopyramide, are cardiac depressants and have other significant side effects. This should be explained to the patient so that later questioning will assist in uncovering these problems. There is no "ideal" drug or drug of "first choice" for every patient. The choice depends on the underlying pathology, clinical status of the patient, and last, but most importantly, on the results of drug testing. In a patient with cardiac failure, digitalis is obviously the first choice. In patients with prolonged QT syndrome and mitral valve prolapse, propranolol is a good choice, since it can shorten the QT interval. It is also the drug of choice for initial therapy in patients with hypertrophic cardiomyopathy. We have found nitrates very useful in controlling VPDs when observed along with angina or ECG evidence of associated ischemia. It is unusual for one drug to succeed in controlling complex VPDs. When a drug given in maximally tolerated doses is partially effective but complex VPDs persist, a second drug should be added. Often two or more drugs in combination (e.g., often propranolol, digitalis, and quinidine) are required.[2]

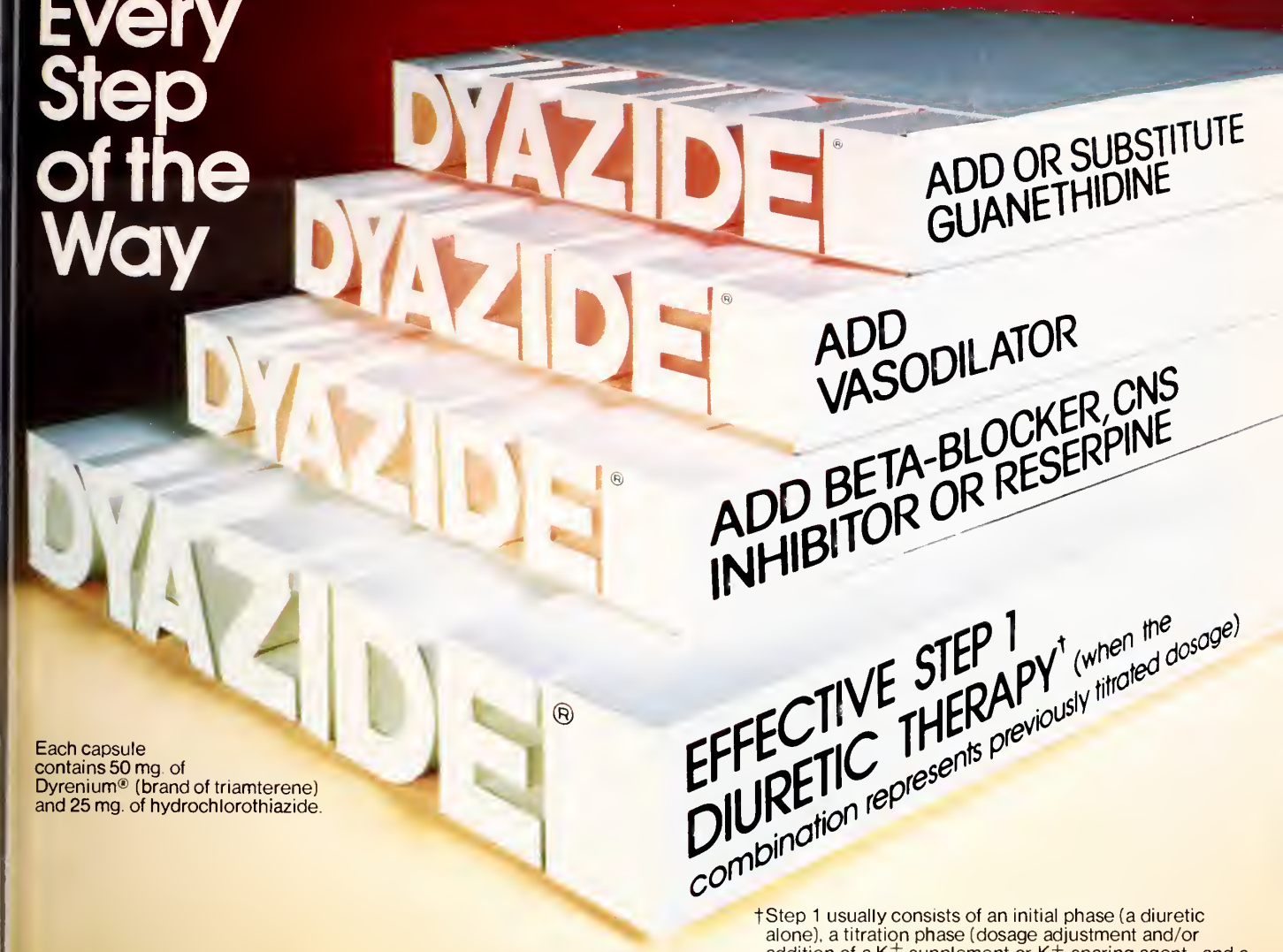
To summarize, VPDs discovered during a routine examination require further evaluation. It is necessary to analyze and quantify arrhythmias in most patients. Asymptomatic patients without structural cardiac disease and infrequent VPDs do not require treatment. Symptomatic patients and those with complex VPDs and important organic disease, e.g. cardiomyopathy or coronary disease — particularly post infarction and post cardiac arrest — even though asymptomatic, require treatment. The choice of therapy varies, and most choices require a combination of two or more antiarrhythmic agents.

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3. Lown B. Sudden cardiac death. The major challenge confronting contemporary cardiology. Am J Cardiol 1979;43:313.
4. Myerburg RJ, Briese FW, Conde C, Mallon SM, Liberthson RR, Costellanos A. Long-term antiarrhythmic therapy in survivors of pre-hospital cardiac arrest. JAMA 1977;238(24):2621.

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Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently, both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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Colleges shouldn't have to choose between lighting their buildings and enlightening their students.

—Thomas Edison
Inventor

There's nothing more frustrating for a scientist than to be on the verge of a great discovery and not be able to afford the equipment he needs. I know.

When I was a boy, I had to work overtime to get the money I needed for equipment. But somehow I eventually got what I had to have for my experiments.

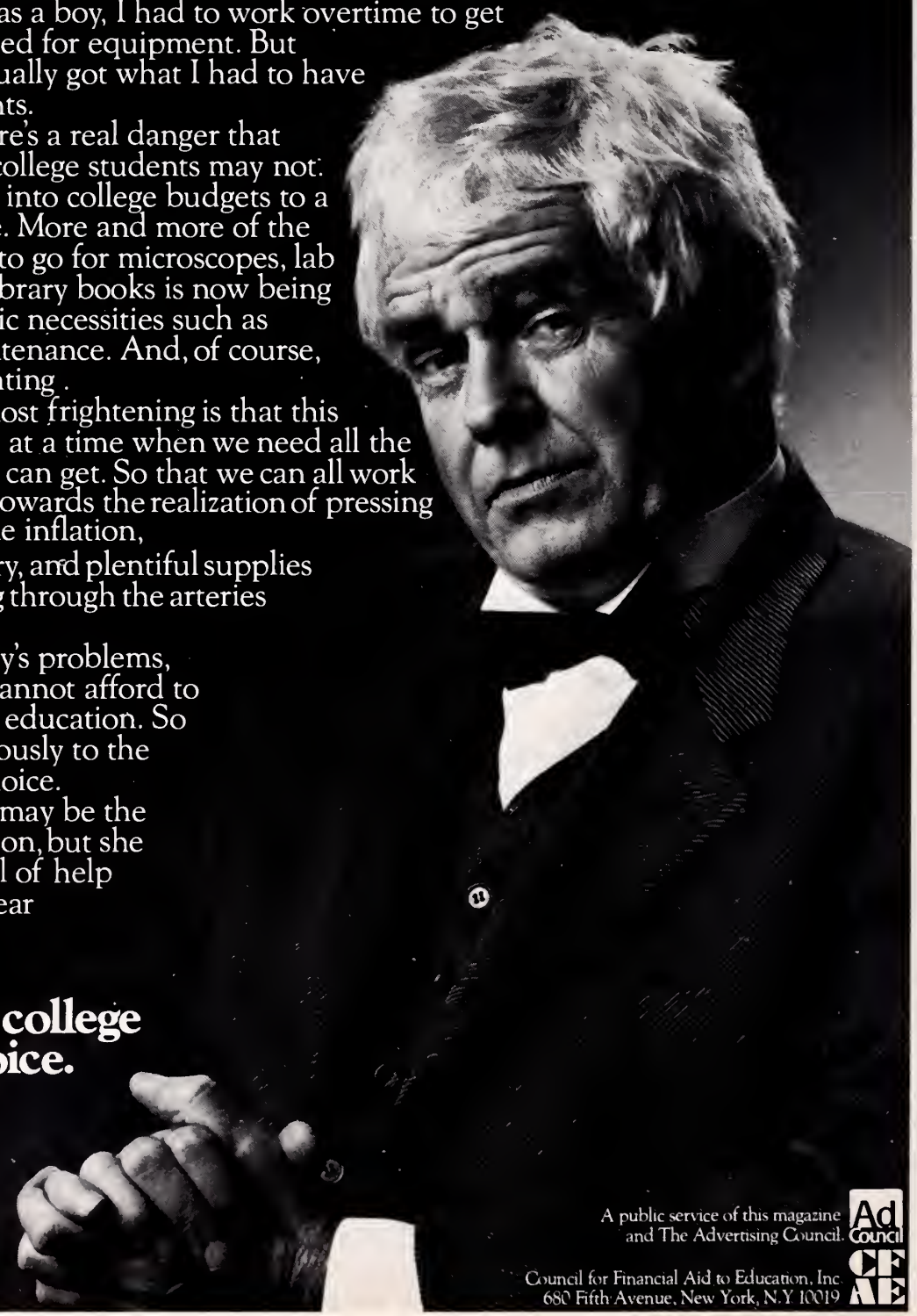
Today there's a real danger that many American college students may not. Inflation is eating into college budgets to a dangerous degree. More and more of the money that used to go for microscopes, lab equipment and library books is now being consumed by basic necessities such as heating and maintenance. And, of course, my specialty – lighting.

What is most frightening is that this squeeze is coming at a time when we need all the trained minds we can get. So that we can all work more effectively towards the realization of pressing goals: manageable inflation, revitalized industry, and plentiful supplies of energy coursing through the arteries of this country.

With today's problems, America simply cannot afford to have second-best education. So please give generously to the college of your choice.

Necessity may be the mother of invention, but she needs a great deal of help if she's going to bear children.

Help!
Give to the college of your choice.

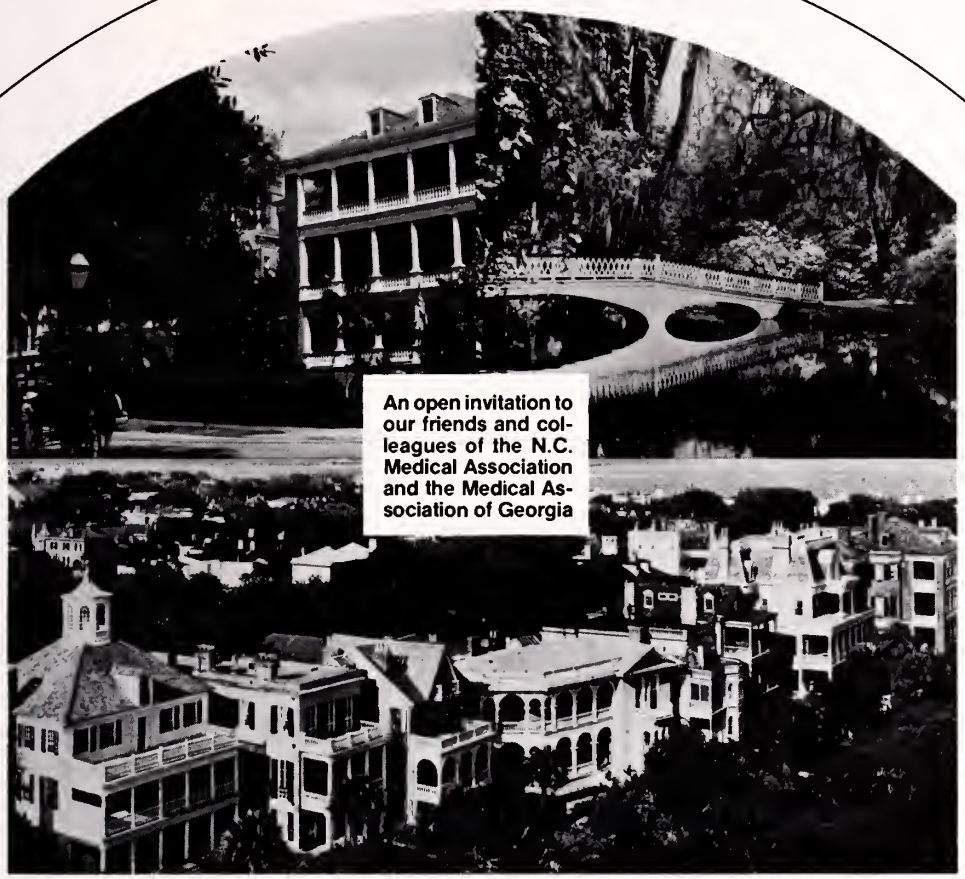


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president's letter



PR Programs and Benefits

PROGRAMS with priorities that involve dedicated and competent people produce benefits.

The Public and Professional Relations Division of MAG consistently endeavors to solidify a closer relationship between the individual physician and the Association. The PR Division equally seeks to clarify and to eliminate any adverse situations that inevitably develop. Our PR programs produce many benefits to our patients and our physicians through responsible communication, education, and patient-physician understanding.

Any physician could unintentionally contribute to the problems of our profession, whether it be health care costs, media communication, or public relations. Our cooperation and commitment must be to work within the framework of the federation of organized medicine to find solutions to those problems. The PR people of MAG are equal to the responsibilities of effectively dealing with such matters.

It should be our concerted effort and concerned thought to support the responsible decisions of the PR leaders of our Association. It then appears logical that the forthright image that our profession must maintain will be of benefit to our patients and to ourselves.

Respectfully,

H. Hilt Hammett Jr., M. D.

H. Hilt Hammett, Jr, M.D.
President, M.A.G.

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PERSONALS

First District

St. Joseph's Hospital in Savannah has named its officers for 1981. Those chosen were **David W. Fillingim, M.D.,** as chief of staff; **Jack Murphy, M.D.,** as vice-president; **Anthony Costrini, M.D.,** as secretary; and **C. L. Osteen, M.D.,** as treasurer.

Swainsboro family physician, **H. R. Frost, M.D.,** retired from medical practice in December, 1980. Members of the Emanuel County Hospital medical staff honored Dr. Frost with a dinner party on December 18.

Paul A. Whitlock, Jr., M.D., Statesboro, was named to serve on the Advisory Board of Directors of the Savannah First Federal Savings and Loan Association.

Robert A. Wynn, M.D., Savannah, was installed in January as chief of staff for Candler General Hospital. Other officers for 1981 include: **Daniel W. Rose, M.D.,** chief of staff-elect; **Wesley Ball, M.D.,** secretary; **Thomas German, M.D.,** treasurer; and **Wendell Buckhaults, M.D., Julian Quattlebaum, Jr., M.D.,** and **Anthony Costrini, M.D.,** executive committee members-at-large. Department chairmen for 1981 are: **G. Donald Clarke, M.D.,** anesthesiology; **George Haberman, M.D.,** emergency; **Robert Moreland, M.D.,** family practice; **Harvey Lebos, M.D.,** medicine;

James D. Smith, M.D., OB/GYN and pediatrics; **Richard Schulze, M.D.,** eye, ear, nose, and throat; **Roderick Guerry, M.D.,** pathology; **Gordon Carson, M.D.,** radiology; and **Thomas Freeman, M.D.,** surgery. All are from Savannah except for Dr. Moreland who is from Garden City.

Third District

E. C. Whatley, M.D., of Reynolds, was elected chief of staff at the Peach County Hospital in Fort Valley for 1981.

Fifth District

R. Mark Wilkiemeyer, M.D., an Atlanta urologist, recently completed microsurgical training for vasectomy reversal at the Johns Hopkins University School of Medicine.

Sixth District

The Fayette County Commission named **Ferrol A. Sams, III, M.D.,** of Fayette, as the new director of the Fayette County Emergency Medical Service.

Robert O. Schoffstall, M.D., will be taking on new responsibilities as the medical coordinator for World Medical Missions, Inc. Dr. Schoffstall is currently the director of surgical education at the Medical Center of Central Georgia in Macon.

Seventh District

The Rome Chapter of the American Association of Medical Assistants named **Lester Harbin, M.D.,** of Rome, as Doctor of the Year.

On Jan. 1, 1981, **John M. Hodges, M.D.,** of Marietta, retired after a 32-year career as a general surgeon.

Eighth District

Donald James, M.D., formerly of Waycross, has moved his OB/GYN practice to Monroe.

Ninth District

Charles G. Jordan, M.D., of Jasper, has announced his retirement from family practice.

Clarkesville obstetrician, **Bruce Swain, M.D.,** has retired after more than 40 years in practice.

Tenth District

Willard Quillian, III, M.D., associate professor of psychiatry at the Medical College of Georgia in Augusta, addressed the Auxiliary to the Richmond County Medical Society. His speech was entitled, "Medical Marriages."

SOCIETIES

At their February meeting, the members of the **DeKalb Medical Society** heard Mr. Lee Brown, Public Service Commissioner of the City of Atlanta. He spoke on crime in Atlanta.

DEATHS

Harry C. Lyon

Harry C. Lyon, M.D., 74, died Dec. 27, 1980, of congestive heart failure. Born and raised in Roswell, Dr. Lyon practiced general medicine in the metro Atlanta area after graduating from Georgia Medical School in 1949. He was a member of the Roswell United Methodist Church.

Survivors include two sisters-in-laws, a brother-in-law; and nieces and nephews.

Ruskin King

Ruskin King, M.D., a Savannah pediatrician, died Jan. 23, 1981, at the age of 78. A native of West Plains, Missouri, he graduated from Emory University School of Medicine in 1925. Dr. King interned in New York City as a pediatrician and practiced there for several years.

In 1934, he and his family moved to Savannah where Dr. King became the fourth resident pediatrician. He served as president of the Georgia Chapter of the American Academy of Pediatrics, the Georgia Medical Society, and the Chatham-Savannah Health Council. He was on the medical staffs of several Savannah hospitals. He was a member of the Wesley Monumental United Methodist Church and the Oglethorpe Club.

Survivors include his wife, two daughters, six grandchildren, and a number of nieces and nephews.

The family requests that instead of flowers, contributions be made to Wesley Monumental United Methodist Church in Savannah or Elizabeth Chapel United Methodist Church in Waynesville, North Carolina.

Physician's Recognition Award Recipients

LISTED BELOW *are those physicians in Georgia who have earned the AMA's Physician's Recognition Award for December 1980.*

The award was established in 1969 "to recognize, encourage and support physicians who participate regularly in continuing medical education and to emphasize the importance of developing more meaningful continuing medical education opportunities for physicians." A minimum of 150 credit hours of CME must be earned over a three-year period to qualify for the award. The hours may include such activities as conferences, residencies, teaching, writing, private reading, listening to cassettes, home study courses, consultation, and peer review; at least 60 of the hours, however, must be from formal CME programs sponsored or co-sponsored by organizations accredited for these activities.

We congratulate the following physicians who have distinguished themselves and their profession by their commitment to continuing education.

Barbara Allen-Dalrymple, Commerce
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Julio Cesar Banderas, Riverdale
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Charles Robert Gershon, Atlanta
Sara Lambeth Goolsby, Rossville
William Ernest Gray, Statesboro
Charles Gray Green, Waynesboro
Patrick A. M. Griffith, Atlanta
Julian Clyde Hutchins, Valdosta
J. Sherwood Jones, Dalton
Carl Edward Lane, Macon
Manuel S. Larrauri, Milledgeville
Max Paul Lorenz, Marietta
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Cecilia B. Ong, Hinesville
James Grant Parke, Jekyll Island
Manharbhai N. Patel, Griffin
Benjamin Leonard Pike, Savannah
Dara Ali Rastegar, Atlanta
John Dixon Reynolds, Augusta
Asbury Clark Robinson, Douglasville
Randi Veie Rosvoll, Atlanta
William R. Rundles, Cairo
Dee Brown Russell, Columbus
Byron Harold Steele, Fairmount
Resora Acoba Untalan, Thomasville
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George Sylvanus Walker, Eastman
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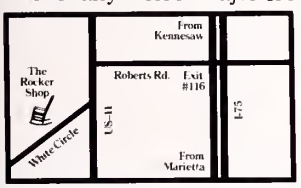
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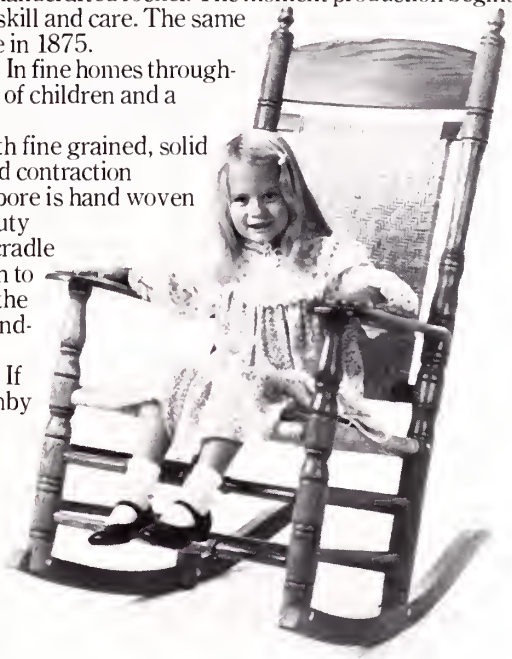
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URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
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Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
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As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
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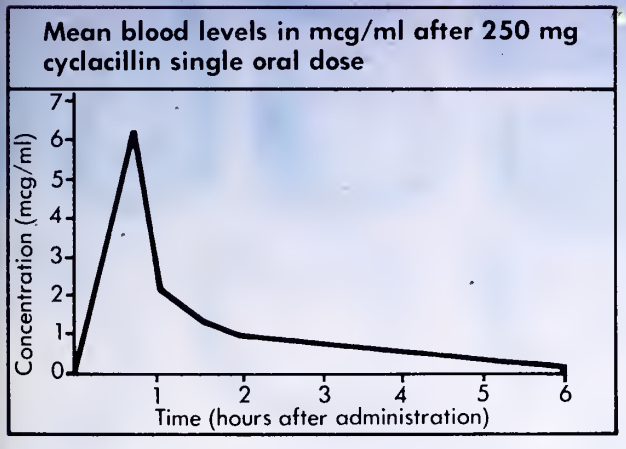
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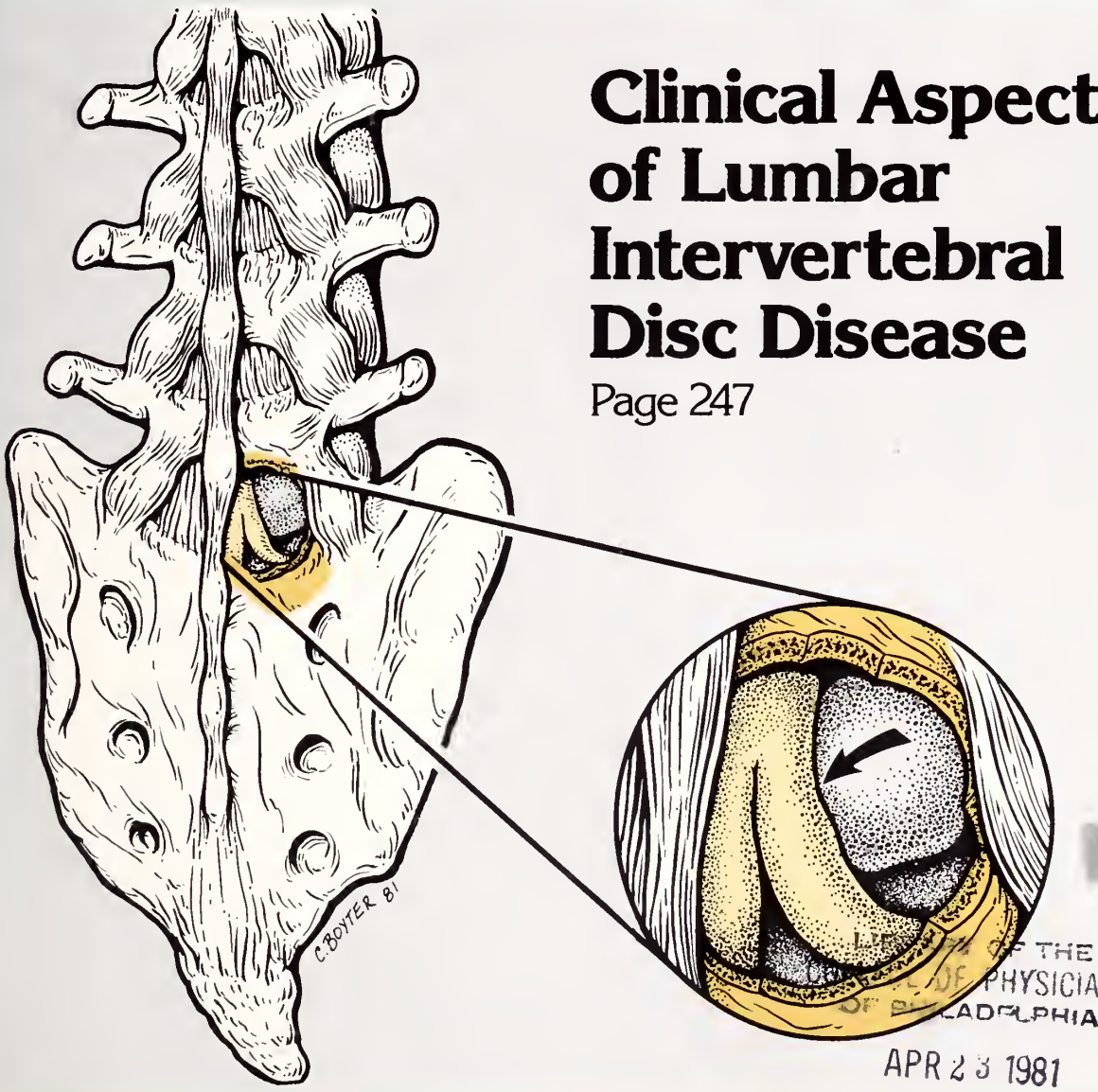


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Clinical Aspects of Lumbar Intervertebral Disc Disease

Page 247

THE
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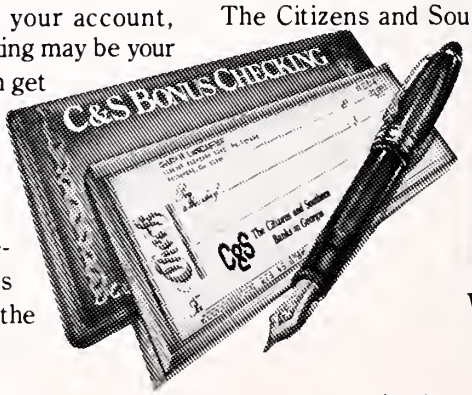
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COX BROADCASTING 7,5)	5	12/23/74	42	740%
ROLLINS, INC	17	3/27/74	33	94%
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BURNUP AND SIMS	19	4/15/74	15	(21%)
HOSPITAL CORPORATION OF AMERICA 1)	14	4/28/76	50	256%
AMERICAN MEDICORP 3)	7	4/28/76	23	228%
AMIC CORPORATION 6)	11	12/4/76	26	136%
UNITED GUARANTY 1)	10	12/4/76	29	190%
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COVER

This month's cover illustrates a large herniated disc at L5-S1 on the right side with significant compression of the nerve root (S1). Dr. Tindall's article on page 247 discusses the clinical aspects of this pathology. Artwork by Charles H. Boyter from the medical illustration department at Emory University School of Medicine. Copyright Emory 1981. Design by Slide Works, Inc., of Atlanta.

Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

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diazepam/Roche

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Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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MEDICAL MEETING CALENDAR

APRIL

22-30—*Las Vegas, NV;* **MEETING OF THE AMERICAN COLLEGE OF OBSTETRICS AND GYNECOLOGY;** Contact: Warren H. Pearse, MD, One E. Wacker Dr. #2700, Chicago, IL 60601.

23-25—*Washington, DC;* **NATIONAL CONFERENCE ON HUMAN VALUES AND CANCER — PSYCHOLOGICAL, SOCIAL & ETHICAL ISSUES;** Category 1 credit; Contact: Nicholas G. Bottiglieri, MD, American Cancer Society, Nat'l Conf. on Human Values & Cancer, 777 Third Ave., New York 10017. PH: 212/371-2900.

23-25—*Chicago, IL;* **77TH CONGRESS ON MEDICAL EDUCATION AND LICENSURE;** Contact: Dept. of Meeting Services, AMA, 535 N. Dearborn St., Chicago, IL 60610.

24—*Atlanta;* **SECOND BIENNIAL GASTROENTEROLOGY SEMINAR;** Category 1 credit; Contact: Dept. of Graduate & CME at Ga. Baptist Med. Ctr., 3 West, 300 Boulevard, NE, Atlanta 30312. PH: 404/653-4600.

24-25—*Augusta;* **DISEASE PREVENTION AND HEALTH MAINTENANCE;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912.

24-26—*Atlanta;* **1ST ANNUAL INTERNATIONAL EYE CONGRESS;** Contact: Linda Albright, Congress Coordinator, Metropolitan Eye & Ear Hospital, 3223 Howell Mill Rd., NW, Atlanta 30327.

25-May 1—*Atlanta;* **AMERICAN OCCUPATIONAL HEALTH CONFERENCE;** Contact: Howard Schulz, American Occupational Medical Assn., 150 N. Wacker Dr., Chicago, IL 60606. PH: 312/782-2166.

27-May 2—*Toronto, Canada;* **MEETING OF THE AMERICAN ACADEMY OF NEUROLOGY;** Contact: Stanley Nelson, 4015 W. 65th St., Ste. 302, Minneapolis, MN 55435.

28-May 2—*San Francisco, CA;* **MEETING OF THE AMERICAN PEDIATRIC SOCIETY;** Contact: David Goldring, Box 14871, St. Louis, MO 63178.

29-May 3—*Bermuda;* **INTERVENTIONAL RADIOLOGY;** Category 1 credit; Contact: Southeastern Angiographic Society, c/o Peter J. Sones, M.D., Emory Univ. Clinic, Dept. of Radiology, 1365 Clifton Rd., NE, Atlanta 30322. PH: 404/329-7014 (Joanne Brooks).

30-May 2—*Dallas, TX;* **RENAL BIOPSY PATHOLOGY IN MEDICAL DISEASE;** Contact: Dr. Edwin H. Eigenbrodt, Dept. of Pathology, Univ. of Texas Health Science Ctr., 5323 Harry Hines Blvd., Dallas, TX 75235. PH: 214/688-2133.

30-May 3—*Sea Island;* **GEORGIA SOCIETY OF OPHTHALMOLOGY ANNUAL MEETING;** Category 1 credit; Contact: Talitha Russell, MAG Headquarters. PH: 404/876-7535 or toll free, 1-800-282-0224.

MAY

8-10—*Callaway Gardens;* **ANNUAL MEETING, MAG HOUSE OF DELEGATES;** Contact: Tom Sawyer, MAG Headquarters. PH: 404/876-7535 or toll free, 1-800-282-0224.

9-15—*New Orleans, LA;* **MEETING OF THE AMERICAN PSYCHIATRIC ASSOCIATION;** Contact: Kathleen Bryan, 1700 18th St., NW, Washington, DC 20009.

10-13—*Washington, DC;* **AAMI SIXTEENTH ANNUAL MEETING AND EXHIBIT PROGRAM;** Category 1 credit; Contact: Association for the Advancement of Medical Instrumentation, P.O. Box 460, Springfield, VA 22150.

11-16—*Augusta;* **FAMILY PRACTICE SYMPOSIUM;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

14-16—*Atlanta;* **OUTPATIENT SURGICAL TECHNIQUES FOR THE NONSURGEON;** Category 1 credit; Contact: Michael Kessler, MD, Physicians Medical Seminars, 970 Clemenstone Dr., Atlanta 30342. PH: 404/971-8797.

18-21—*Atlanta;* **CENTER FOR DISEASE CONTROL'S 16TH IMMUNIZATION CONFERENCE;** Contact: C. Walt Scheffel, CDC, Atlanta 30333. PH: 404/329-3631.

18-22—*Augusta;* **SECOND ANNUAL CRITICAL CARE MEDICINE SYMPOSIUM;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912.

20-22—*Huntsville, AL;* **SOUTHERN REGIONAL CONFERENCE ON EMERGENCY AND CRITICAL CARE MEDICINE;** Category 1 credit; Contact: Wendell Shannon, MD, 106 Sanders St., Athens, AL 35611, PH: 205/232-2505 or Steven Hall, Box 2104, Decatur, AL 35602, PH: 204/353-3800.

20-23—*Jekyll Island;* **GEORGIA PUBLIC HEALTH ASSOCIATION MEETING;** Contact: J. D. Smith, Ga. Public Health Assn., P. O. Box 38183, Atlanta 30334. PH: 404/656-4764.

21-22—*Callaway Gardens;* **NINTH ANNUAL PERINATAL MEDICINE CONFERENCE;** Category 1 credit; Contact: Div. of Perinatology, The Medical Center, P.O. Box 951, Columbus 31994. PH: 404/324-4711.

JUNE

4-6—*Lake Lanier Island;* **OBSTETRICS AND GYNECOLOGY UPDATE;** Category 1 credit; Contact: A. H. Ansari, MD, 340 Boulevard, NE, Atlanta 30312. PH: 404/659-5211.

11-13—*Jekyll Island;* **RECENT ADVANCES IN INTERNAL MEDICINE;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

22-26—*Palm Beach, FL;* **13TH FAMILY PRACTICE REVIEW;** Contact: Bill Rockwood, Box J-233, J. Hillis Miller Health Ctr., Gainesville, FL 32610.

25-27—*Hilton Head Island, SC;* **CLINICAL CARDIOLOGY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

29-July 1—*Kiawah Island, SC;* **HIGH RISK OBSTETRICS;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH: 404/828-3967.

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Rabies Immune Globulin (Human)—Hyperab* is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine. Hyperab* globulin is a 16.5% ± 1.5 solution of gamma globulin from venous blood in 0.3M glycine, preserved with 1:10,000 Thimerosal (a mercury derivative). Its pH is adjusted with sodium carbonate. The product is standardized against USA Standard Antirabies Serum. The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody.

This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab* should, therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab* globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway, and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

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A portion of the Hyperab* globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab* is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab* globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab* globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental, or causally related to the gamma globulin.

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WHY I'M A UNITED WAY VOLUNTEER



GREGORY FALLS [redacted]

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Career: Artistic Director

Age: 57

Married: Four children

Interests: Drama, writing, travel and volunteering for United Way

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Incidental Intelligence . . .

Medical Students Attending the AMA National Leadership Conference in Chicago Share Their Impressions

The support of organized medicine for the new Reagan administration was obvious at the National Leadership Conference in Chicago this year. Almost every speaker made some reference to "our man" in the White House. And why not? Reagan, an outspoken critic of the federal bureaucracy, is "just what the doctor ordered." Reagan is a firm believer in the free enterprise system and supports a laissez-faire economy. Of course, we all know that a true Adam Smith-type laissez-faire economy is a thing of the past. But what does this presumed "hands off" policy really mean to organized medicine?

If Reagan is true to his word, there will be numerous budget cuts, with health services being no exception. The medical profession must learn to adapt to these reduced funds. Nevertheless, I feel that research and education are two areas that should be spared the budget-cutting ax. These areas are the foundation of medicine in the 21st century. Without basic research, medicine as we know it today would not exist. To curtail research is to thwart medical progress.

HHS Secretary Richard Schweiker, in his address to the conference assembly, stated that prevention would be at the top of his priority list. He stated that programs geared towards prevention would receive preference over projects involving disease treatment. In spite of what some people may think, all diseases are not preventable (or at least we do not know enough about the diseases to know how to prevent them). Prevent cancer?! We don't even know what causes it. And we won't know if financial support for basic research is cut. Until we gain more information about disease processes such as lupus, scleroderma, and cancer, how can we expect to know how to treat, much less prevent, these maladies?

I wholeheartedly support the idea of less federal interference in medicine. Nevertheless, I think it is incumbent upon the AMA to work with Reagan's administration and to let the "powers that be" know the dangers of budget cuts involving research and education. In the long run we will be saving money — and maybe even a few lives.

Paul Cook
3rd year medical student
Medical College of Georgia
Augusta

I want to first of all thank those responsible for my recent trip to the AMA Leadership Conference in Chicago. Until then, I had had little exposure to the AMA, what it is, who it represents, and what it does. Being given the opportunity to attend the conference was my first chance to appreciate what organized medicine is all about.

Attending the many seminars offered in the conference gave me a brief glimpse into some of the problems medicine faces in the future. The rising cost of health care and the ways in which to deal with it were major topics of discussion. These discussions centered around continuing voluntary efforts to achieve cost containment. Apparently, however, with the ever-growing inflation rate and the fact that health care costs presently comprise about 10% of the GNP, other plans must be instituted to prevent a further increase in the percentage that these costs will comprise in the future. Many talks concerning this issue were given by health care economists, government representatives, and physicians. Various debates gave me a further understanding of HMOs and answered questions that I had concerning who they serve and whether they indeed were providing adequate health care for those who needed it. Other seminars covered the topics of free-market competition and created a realistic picture of what medicine faces — should health care providers compete with one another for services or should the status quo remain and possibly lead to more government regulation?

These talks were well presented, informative, and exciting to me as a student because I am rarely addressed by prominent individuals who are considered experts in the field of health care management. On leaving the conference, I felt more informed about the upcoming issues that medicine faces in the future and about the importance of the AMA as the representative body of American physicians. After all, if physicians had no one to represent their grievances, then those grievances would never be heard or acted upon by those responsible for determining health care policy.

Thank you once again for this opportunity.

Fanny Jove
3rd year medical student
Emory University School of Medicine
Atlanta

Federal Health Planning — Whether or Not It Should Continue

A very strong case exists for cessation of the federal health planning program, the American Medical Association has told the Congress.

Planning has become "a network of quasi-regulatory agencies more responsive to federal directives and concerns than to the health and medical needs of the communities purportedly served," the AMA told the Senate Appropriations Subcommittee on Health.

In a letter to subcommittee Chairman Harrison Schmitt (R-NM), James Sammons, MD, AMA Executive Vice President, said the health planning program "has clearly done more to interfere with health care competition than

to foster it." The certificate-of-need requirements "establish barriers to entry in a market for competitors and, therefore, inhibit the market from operating efficiently to allocate resources," said Dr. Sammons. The program has had little effect in containing costs, he said. The AMA House of Delegates recently reaffirmed AMA policy calling for repeal of the Health Planning Act.

Dr. Sammons noted that the AMA is developing principles for voluntary health planning which can serve as a foundation for establishing priorities and purposes for local planning agencies.

Expressing a completely contrary opinion, Harry Cain, Executive Director of the American Health Planning Association, said "The proposal to phase out quickly the health planning program is likely to cost the government — and all the consumers, providers and other payers of health care — a great deal more than the $100 million it purports to save."

Welcome to Callaway Gardens!

The physicians of Meriwether-Harris County Medical Society would like to take this opportunity to welcome the delegates, MAG members, wives, and other visitors to the MAG Annual Session at Callaway Gardens on May 7.

Plans are being made for visitation at the Meriwether Memorial Hospital, in Warm Springs (Mr. Jack Smoot, Administrator) and the Roosevelt Warm Springs Institute for Rehabilitation, also in Warm Springs (Mr. Ellies Moran, Administrator). Positions are available at both places for physicians and para-medical personnel.

We feel this meeting will be an enjoyable, relaxing experience. Callaway Gardens has many interesting and informative projects, along with an abundance of golf and tennis, and we feel this relatively relaxed country-style living will appeal to everyone.

Sincerely,
H. Calvin Jackson, M.D. President
Meriwether-Harris County Medical Society

Advanced Trauma Life Support Courses

Through its Georgia Committee on Trauma, the American College of Surgeons is sponsoring and contributing to the development of an Advanced Trauma Life Support (ATLS) course. This course is designed to teach the primary care physician and second-career emergency physician a standardized approach to trauma care in the early hours of trauma patient assessment and to teach life-saving skills. The course will be administered and taught by designated and specially trained physicians selected by the State Trauma Committee chairman. Courses will be presented throughout Georgia in two 8-hour sessions, during which time lectures, practical skill stations, and testing parts will be scheduled. For notices of the dates of these courses, check the *Journal's* "Medical Meeting Calendar." For further information about the Georgia Committee on Trauma or the course it offers, contact its chairman, Charles B. Gillespie, M.D., F.A.S.C., 810 14th Ave., Albany, GA 31701.

Auxiliary Works on *Journal* Ad Sales and Substance Abuse Programs





(Left) Mrs. J. Hagan Baskin, Jr., (Shirley), co-chairman with Mrs. James L. Askew (Julie), plans the ad campaign underway by the Auxiliary to MAG to raise funds for AMA-ERF. (Right) Mrs. James L. Clements, Jr., (Margaret) was responsible for "assessment kits" which have been sent to all Auxiliary families in Georgia.

As the end of the 1980-81 fiscal year approaches, the Auxiliary to MAG is working on the final stages of the last two of five programs requested in September, 1980, by the Medical Association of Georgia.

Mrs. James L. Askew (Julie) of the Clayton-Fayette Auxiliary, and Mrs. J. Hagan Baskin, Jr., (Shirley) of the Auxiliary to the Medical Association of Atlanta, who are co-chairmen, have kicked off the campaign to obtain advertisements for the *Journal*. To date, Auxiliary members have sold more than $5,000 in ads, of which they will receive 25% to be contributed to AMA-ERF. It is intended that the operation which has been set up by these co-chairmen will be extended over the entire state in the coming year.

Mrs. James L. Clements, Jr., (Margaret) chairman of the Impaired Physicians program, is involved in carrying her message on alcohol and drug abuse to various groups in all sections of the country. She has received many invitations from other state organizations to tell about the Georgia program and give pointers on organizing their own fight against substance abuse.

Mrs. Clements has had 3,500 copies of "assessment kits" printed having to do with substance abuse. They have been distributed to the families of all Auxiliary members in Georgia, and she expects to have these kits in the hands of all legislators' families in the near future. (*Reported by Evelyn Gay (Mrs. Brit B.), A-MAG Historian and Editor of* Pulse Line.)

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Clinical Aspects of Lumbar Intervertebral Disc Disease

GEORGE T. TINDALL, M.D., *Atlanta**

Introduction

HERNIATION of the nucleus pulposus in the lower lumbar region with associated low back and radicular leg pain (''sciatica'') is a commonly encountered and frequently disabling condition. Fortunately, it is usually curable when the appropriate therapy is applied. Approximately 200,000 operations are performed annually for disabling lumbar disc disease, and this figure represents only a small fraction of the number of patients with symptomatic lumbar disc disease. Surgery for a ruptured lumbar disc represents the most common operation performed by the majority of neurosurgeons.

Since the pioneer contributions of Mixter and Barr, who first correctly related herniated lumbar intervertebral discs to low back and leg pain in 1934,[1] several advances in clinical evaluation, neurodiagnosis, and therapy of this disabling condition have been made. It is the purpose of this paper to review these advances and to discuss current diagnostic and therapeutic management of these patients.

Anatomic Considerations

The intervertebral disc, which is the fibrocartilaginous complex that forms the articulation between the bodies of the vertebrae, provides a strong union which is necessary for effective action and protective alignment of the spine. Each disc consists of (1) an internal semifluid mass, the nucleus pulposus, and (2) its laminar fibrous container, the annulus fibrosus (Figure 1). The nucleus pulposus occupies an eccentric position within the annulus, usually being closer to the posterior margin of the disc. Histologically, the disc is composed of loose, delicate, fibrous strands embedded in a gelatinous matrix. A considerable number of cells are suspended in the fibrous network. Many of these cells are fusiform and resemble reticulocytes, but vacuolar and nucleated chondrocytes are also interspersed in the matrix. A thin chondral plate is situated both above and below each disc and serves to separate the vascular trabeculae of the vertebral body from the disc.

The annulus fibrosus is a concentric series of fibrous lamellae that encase the nucleus and unite the vertebral bodies. There is no definite structural interface between the nucleus and the annulus. Rather, the two tissues blend imperceptibly. One of the major functions of the annulus is to withstand tension.

Pathologic Aspects

Prior to the actual displacement of disc material, both the nucleus pulposus and annulus undergo certain well-defined, degenerative changes. Radiating cracks in the annulus develop and weaken its resistance to nuclear herniation. Posterior displacement of the nucleus pulposus may occur in a variety of ways. Rarely, there may be massive nuclear extrusion in which a large volume of disc material is suddenly thrust into the spinal cord, producing a profound neurologic deficit. Fortunately, it is more common for the extrusion to be a gradual and intermittent process and for this reason, symptomatic disc pathology varies from simple bulging of the annulus to an actual extrusion of degenerative disc material through a rent in the annulus.

* Dr. Tindall is from the Division of Neurosurgery, Emory University School of Medicine. Send reprint requests to him at Section of Neurological Surgery, Emory University Clinic, 1365 Clifton Rd., NE, Atlanta, GA 30322.

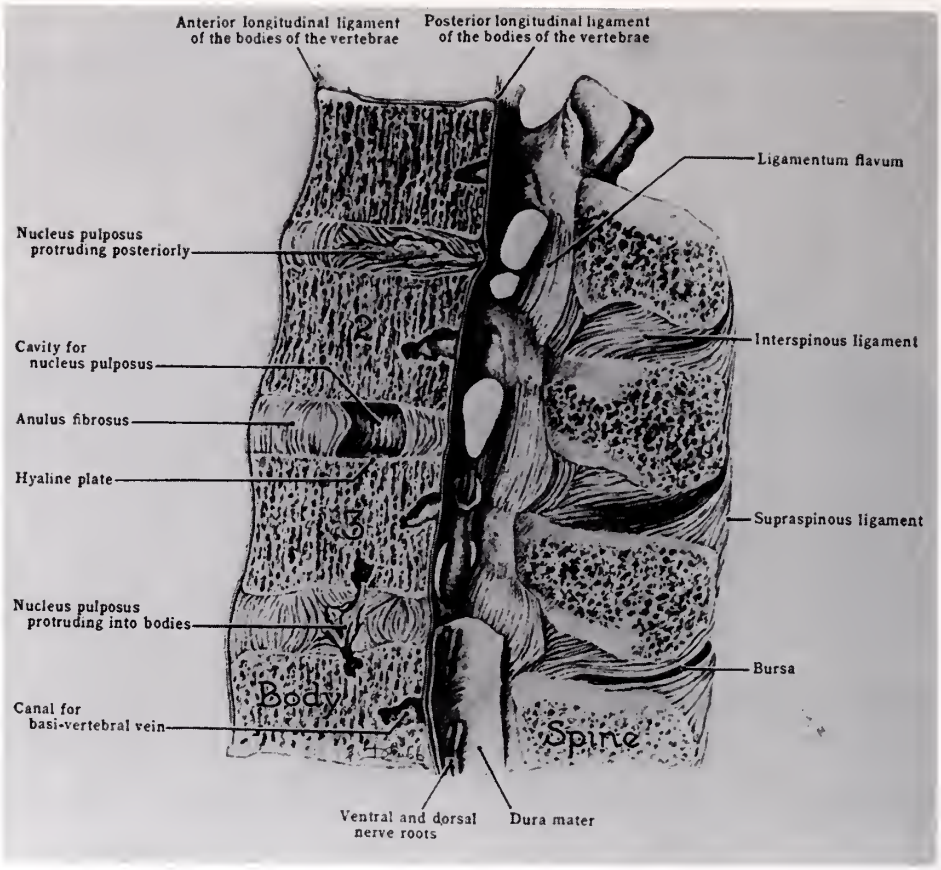


Figure 1 — Sagittal section through lumbar spine illustrating anatomical aspects of intervertebral disc.[12]

Clinical Findings

Clinical findings are valuable both in arriving at the correct diagnosis and assessing the appropriate form(s) of therapy to institute. The history related by patients usually is one of recurrent attacks of low back pain commonly in association with physical exertion. Back pain as a result of lumbar disc disease is probably due to bulging of the annulus fibrosus with associated stretching and irritation of the sinuvertebral nerve in the posterior longitudinal ligament. The sinuvertebral nerve, which originates from the dorsal ramus of a spinal nerve, courses back through the intervertebral foramen to supply fibers to the articular connective tissue, periosteum, meninges, posterior longitudinal ligament, and vascular structures associated with the vertebral canal. Interestingly, the nucleus pulposus and the inner laminae of the annulus fibrosus are lacking in innervation. Further herniation and/or bulging of the degenerated disc results in compression of a peripheral nerve root, an event signaled by pain that radiates into the leg (''sciatica''), usually into the posterior-lateral aspect of the thigh and calf. The back and leg pain associated with disc rupture is almost invariably made worse by physical exertion, i.e., bending, lifting, straining as in coughing or sneezing, and is usually relieved by rest, particularly by lying down.

Examination

There are two important aspects of the examination of patients with lumbar disc disease. One involves a careful neurologic assessment to determine whether the nerve root compression has resulted in reflex, sensory, and/or motor impairment. The other aspect entails meticulous testing for what has been termed ''mechanical'' signs, such as the reproduction of ''sciatica'' on passive raising of the affected leg.

The neurologic examination in patients with lumbar disc disease is important for several reasons. The great majority (approximately 95%) of lumbar disc herniations are located at either the L4-5 or the L5-S1 interspace.[2] Usually, a single disc herniation involves only one nerve root, and because of the special anatomic relationship of a given nerve root to the disc and to the intervertebral foramen, it is usual for the disc herniation at the L4-5 interspace to involve the L5 nerve root and likewise, a pathologic disc at L5-S1 interspace involves the S1 root. Since each of these roots has a characteristic distribution, compromise of either the L5 or S1 nerve root by disc compression produces typical neurologic findings appropriate to the involved root. Thus, thorough examination coupled with a knowledge of nerve root distribution enables the physician to determine the site of lumbar disc rupture. The neurologic involve-

TABLE 1 — NEUROLOGIC IMPAIRMENT DUE TO HERNIATED LUMBAR DISC

Site of Disc Herniation	Nerve Root Involved	Expected Neurologic Findings
L3-4	L4	Weakness and/or mild atrophy of quadriceps femoris. Knee jerk absent or impaired. Loss or impaired sensation, medial aspect of leg. Intact ankle jerk.
L4-5	L5	Weakness of dorsiflexion of foot. Mild atrophy of anterior tibialis and extensor hallucis longus. Loss or impaired sensation, medial foot, great toe. Intact ankle jerk.
L5-S1	S1	Weakness plantar-flexion of foot (relatively uncommon). Loss or impairment of ankle jerk. Loss or impaired sensation, lateral foot, digits 4 and 5.

ment that may be seen with disc herniations at different levels is shown in Table 1.

In addition to localizing the site (i.e., the involved interspace) of disc herniations, the examination establishes a baseline for subsequent assessments and enables the physician to decide on the most appropriate therapy. For example, a typical history with moderate to marked weakness of dorsiflexion of the foot usually calls for surgery rather than a more conservative approach (provided the diagnosis is confirmed by myelography).

Mechanical signs, i.e., findings dependent upon stretching or movement of the involved nerve root against the herniated disc, are especially helpful in establishing the diagnosis and also in selecting the appropriate therapy. Commonly elicited mechanical signs include the straight-leg raising test; popliteal compression test; well-leg raising test; the degree of forward bending of the lumbosacral spine; and sciatic tenderness. One of the most important and best known of the various mechanical signs is the straight-leg raising test. This test is performed with the patient in the supine position by slowly raising the unbent leg on the side of the "sciatica." A positive response consists of the reproduction of pain. The examiner notes and records the angle formed by the straight leg and the horizontal plane when the patient registers pain. As already mentioned, the test depends upon movement of the affected nerve root against the extruded or herniated disc. A positive straight leg raising sign is a reliable and consistent finding in patients with symptomatic herniated lumbar disc.

Neurodiagnostic Tests

The ancillary electrodiagnostic and radiographic tests available to the physician for further assessment of a patient with suspected injury to the lumbar disc include lumbosacral spine films (regular and tomography); myelography; electromyography (EMG); discography; and epidural venography. In atypical cases, bone scan to exclude entities such as metastatic tumor involvement may be useful. From a practical standpoint, plain lumbosacral spine films and myelography constitute the more valuable and commonly used neurodiagnostic tests in these patients.

Lumbosacral spine films — These should be obtained routinely on all patients with suspected lumbar disc disease and should include anteroposterior (AP), lateral and right and left oblique views. These films are valuable in depicting indirect evidence of pathologic discs as well as excluding other entities (i.e., metastatic tumor involvement of the lumbar spine, spondylolisthesis, etc.).

Myelography — This test is the most important and definitive one. It can not only confirm the clinical diagnosis but also indicate the exact location (i.e., interspace level) of the lesion.

For many years, pantopaque has been the most reliable contrast agent used for myelography. One problem associated with it, however, is the pain caused by aspiration of the viscid oily substance through the lumbar puncture needle at the end of the procedure. The pantopaque was removed because it was believed that arachnoiditis might develop if it remained in the subarachnoid space. (The absorption of retained subarachnoid pantopaque is very slow, i.e., an estimated rate of about 1 cc/yr, and it is usually incomplete). Another disadvantage of pantopaque is that its high viscosity often prevents it from clearly outlining nerve root sleeves.

Recently a water-soluble contrast media, metrizamide (Amipaque — Winthrop Labs), has become available for myelography. It has been used at our institution in over 200 lumbar myelograms without a serious reaction and is easier on patients because it is absorbed completely in 12-24 hours, thus obviating the need for its removal. Additionally, metrizamide has been proven superior to pantopaque in that it better delineates the nerve roots in the cauda equina. In our opinion, it is currently the contrast medium of choice for lumbar myelography. Examples of metrizamide myelograms showing herniated intervertebral discs are shown in Figure 2.

Electromyography (EMG) — This test will usually corroborate the clinical findings by identifying the involved nerve root. The EMG will only indicate nerve damage that has been present longer than 1 month. In my experience, the EMG does not establish the diagnosis of herniated lumbar disc and virtually never influences the decisions involving the management of a patient. It would appear that the EMG elicits more interest from a legalistic and/or

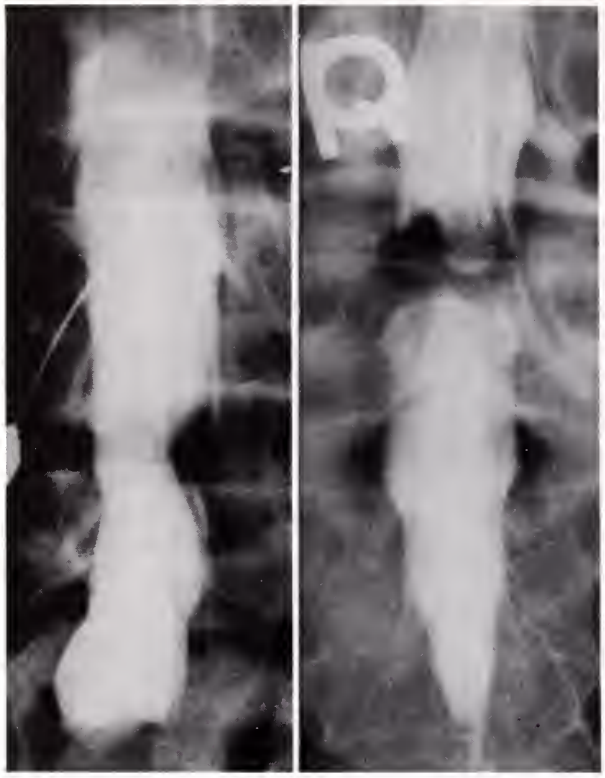


Figure 2 — Lumbar myelogram (using Metrizamide) showing (a) herniation of the disc at the L4-5 interspace (Patient W.K., oblique view, and (b) near complete transverse block caused by a large herniated disc at the L4-5 interspace (AP view, Patient J.C.)

compensation standpoint than appears justified. The test is not recommended in the routine investigation of a patient with suspected or proven lumbar herniated disc.

Discography — Discography is performed by placing a fine gauge (i.e., 22 gauge) lumbar puncture needle into the disc space under image intensification (televised fluoroscopy). Contrast media is then injected into the interspace and information recorded as to the amount of dye accepted, the pressure required to inject the material, the configuration of the contrast media, and reproduction of the patient's pain. A normal discogram may be helpful in ruling out disc degeneration, but "abnormalities" on the discogram are seen so frequently that relatively little significance can be placed on the presence of a roentgenologically abnormal discogram unless it correlates with clinical observations. However, the *subjective* response after an injection of a small quantity of saline into the symptomatic disc may be very helpful diagnostically. Usually, back and leg pain similar to that described by the patient will occur when the needle enters and the injection is made into the pathologic disc. In my opinion, this aspect of discography is more valuable than the radiologic demonstration of an abnormal disc, particularly in evaluating patients who have had previous disc surgery and who have a "recurrent disc syndrome."

Epidural venography — This is performed by percutaneously inserting a catheter into the femoral vein, passing it retrograde into the sacral veins, and injecting from 15 to 30 cc of contrast media. This procedure results in visualization of the epidural veins. The examination requires a radiologist experienced with the technique both to perform and to interpret the results. While venography has some diagnostic value in patients with suspected lumbar disc disease, it is not recommended as a routine test, principally because an experienced clinician can usually diagnose a diseased disc and make a decision regarding management on the basis of clinical findings and myelography.

Computed Tomography (CT scan) — Continued refinements in CT scanners have resulted in a degree of resolution that might make it possible to diagnose ruptured lumbar disc in many cases without the necessity of myelography. Recently, Meyer *et al.* reported 25 patients in whom the CT scanner was effective in diagnosing unoperated cases of ruptured discs.[3] While this method appears to offer a simpler and easier method for the positive diagnosis of ruptured discs, more experience will have to be accrued before the CT scanner becomes a routine diagnostic tool.

Differential Diagnoses

While numerous pathologic entities can cause back and leg pain, the most common lesions include herniated nucleus pulposus, osteoarthritis, lumbar spondylosis, spondylolisthesis, and neoplasm. Neoplasms may be metastatic, primary bone, or intradural spinal tumors. In adults between the ages of 25 and 45 years, herniated nucleus pulposus is the most common entity causing back and leg pain. Certain aspects of the history are very helpful in differentiating other pathologic conditions from a herniated lumbar disc. For instance, the occurrence of nocturnal pain, particularly after the patient has been in bed for an hour or so, strongly suggests spinal cord tumor. Pain on arising in the morning that improves with activity suggests osteoarthritis and/or lumbar spondylosis. Chronic recurrent back pain beginning in the late teens, especially pain that worsens with activity, should alert one to the possibility of spondylolisthesis, a condition which can be diagnosed by the appropriate lumbosacral films.

Treatment

The choice of therapy, i.e., conservative (nonoperative) versus operative, is determined by a variety of factors. These include both the duration and severity of symptoms and the presence of neurologic deficits such as a foot drop or neurologic impairment of urinary bladder function. The indications for surgery are straightforward and include: (1) the pres-

ence of a disabling and/or potentially progressive neurologic deficit, and (2) intractable pain that fails to respond to a conservative approach after an appropriate interval of time (10 to 14 days). A disabling and/or potentially progressive neurologic deficit includes: (1) segmental motor loss (i.e., a significant foot drop) or paraparesis, and (2) loss of sphincteric (i.e., bowel and/or bladder) function.* These criteria for surgery should be rigidly followed if one expects to achieve good results in lumbar disc surgery. Experience has shown repeatedly that unless pain has become intractable or a disabling or potentially progressive neurologic deficit is present, a conservative approach is advised. It should also be emphasized that the mere presence of a herniated disc does not constitute a reason to remove it.

Conservative (i.e., non-operative) treatment measures consist of bed rest on a relatively firm, nonsagging mattress; the use of a lumbosacral corset; an exercise program, such as the institution of Williams' exercises; and in general, the curtailment of strenuous physical activity. The period of bed rest is usually from 7 to 14 days, and the patient should be allowed up only for meals and bathroom privileges. A corset should be worn whenever the patient is ambulatory and as long as pain is a problem.

When surgery is indicated, x-rays of the lumbosacral spine and lumbar myelography should be obtained on admission to the hospital. Further testing depends upon the results of the myelogram. If the latter is positive and correlates with the clinical findings, then one can proceed with surgery. When the myelogram is negative or equivocal, however, then other diagnostic procedures such as venography and/or discography should be used to facilitate a diagnosis and thus aid in making the most appropriate therapeutic decision.

Surgery is performed using either spinal or general anesthesia. The patient should be positioned on the operating table in a prone position with the lower extremities flexed. A 3- to 4-inch midline lumbar incision is made over the appropriate interspace (as determined by intraoperative lateral lumbar spine x-ray). The muscles and other soft tissues are dissected off the spinous processes and laminal arches of the vertebra. After identifying the correct interspace, the ligamentum flavum is removed on the side of the disc herniation. Usually, it is also necessary to remove a small rim of bone from the laminal arches in order to gain proper exposure. The nerve root, which is usually taut from the underlying disc, is gently retracted medially. The ruptured disc is then visible and can be removed, after which the incision is closed in anatomic layers. The patient can be allowed to walk the following day and discharged from the hospital in approximately 6 to 7 days. It should be emphasized to the patient that this operative procedure does not "weaken" the back.

There are certain general guidelines in lumbar disc surgery which if followed will improve the results in any given series of patients. For instance, the operation should be kept simple and the nerve root(s) and dural sac manipulated with a very gentle and meticulous technique. Rough and excessive retraction of nerve roots in order to remove the abnormal disc; the exploration of multiple interspaces; and "routine" spinal fusion are to be avoided. The surgeon should expose only the involved interspace, gently retract the nerve root and remove the extruded, degenerated fragments of disc material. Adipose tissue and/or gelfoam soaked in hydrocortisone should be left over the exposed nerve root to minimize postoperative scarring.

Spinal Fusions — Although the current trend among orthopedists and neurosurgeons is to perform fewer spinal fusions than in previous years, it is my opinion that this operation should be considered in patients who have proven and symptomatic recurrent disc disease at the same interspace that was previously treated, particularly in a male patient whose occupation includes hard physical labor. An appropriate form of fusion for these patients is the posterior lumbar interbody fusion described by Cloward.[4]

Results of Treatment

Conservative Treatment — The results of conservative treatment are relatively good, and the study by Armstrong[5] typifies the results that can be expected with this form of treatment. He found that less than 20% of the group achieved complete relief of symptoms; approximately 60% obtained partial relief which was adequate for them to return to a normal life with limitations; and 10 to 20% achieved no relief and ultimately had to have surgery.

Surgical Treatment — The results of surgery are excellent, and in properly selected patients in whom strict criteria have been followed, cures can be expected in 85%. Shannon and Paul[6] analyzed the results of surgery in 323 patients with lumbar disc disease. Strict criteria for diagnosis and surgery were followed, and compensation cases were not included. There were 241 men and 82 women. Following surgery, 89% of the men and 79% of the women became asymptomatic and had no clinical signs referable to the lumbar spine. Symptomatic recurrent disc disease developed in 4.6%.

In approximately 10 to 15% of patients undergoing surgery for lumbar disc disease, varying degrees of pain persist. The subsequent management of these cases requires considerable patience and time on the part of both the physician and the patient.

* Sensory impairment in the leg and/or foot and either loss or impairment of deep tendon reflexes are not regarded as disabling neurologic deficits.

Recent Developments

In recent years, attention to lumbar disc disease has been focused upon two developments — (1) chymopapain and (2) microdiscectomy. The status of these developments is summarized below.

Chymopapain — Chymopapain, a crystalline protein from *papaya latex,* was first used in the treatment of herniated lumbar disc by Smith[7] in 1963. He used a percutaneous technique to inject the enzyme into the disc space and termed the treatment chemonucleolysis. The rationale for this therapy is that the enzyme will dissolve part or all of the nucleus pulposus and relieve nerve root pressure, thus alleviating pain. Since Smith's early reports, several thousand (i.e., > 10,000) patients have undergone chemonucleolysis with successful results ranging from 50% to 80%.[8]

Javid[9] reported recently on his experience with 124 patients who were treated with chemonucleolysis. Three-to-five-year follow-ups were obtained by questionnaire. Of 114 patients responding, 83 reported marked improvement. The author concludes that chemonucleolysis can be considered an alternative to surgery in appropriately selected cases. To date, however, chymopapain has not been released by the Federal Drug Administration for general use, although the enzyme is available and is being used in a few Canadian clinics. The principal reasons that the material has not been released in the United States are that it is not completely free of toxic reactions (primarily anaphylactic) and some studies suggest that the effectiveness of chemonucleolysis with chymopapain may derive from a placebo effect.

Microdisectomy — Over the past 10 to 15 years, an increasing number of neurosurgeons have begun using the operating microscope along with appropriate microtechniques in a variety of neurosurgical operative procedures. The use of the technique which is referred to as microneurosurgery has resulted in impressive decreases in operative morbidity and mortality in many neurosurgical operative conditions, such as acoustic neuromas, intracranial aneurysms, and pituitary tumors. In recent years, microneurosurgery has been applied to symptomatic lumbar disc disease with good results (Figure 3). For instance, in a recent publication, Wilson and Kenning[10] described the use of microneurosurgery (or as applied to disc surgery, "microdiscectomy") in 80 cases. Of this number, 56 (70%) returned to their usual activities within 12 weeks, and 77 (96%) did so within 1 year. The authors reported that the average blood loss was only 50 cc; average operating time was 96 minutes, and average hospital stay was 3.8 days. Similar results with microdiscectomy in lumbar disc disease have been reported in a large group of patients by Williams.[11] Stimulated by these impressive results, an increasing number of neurosurgeons are now treating symptomatic lumbar disc disease with microtechniques. In my opinion, microdiscectomy appears to be a definite advance in the operative management of lumbar disc disease.

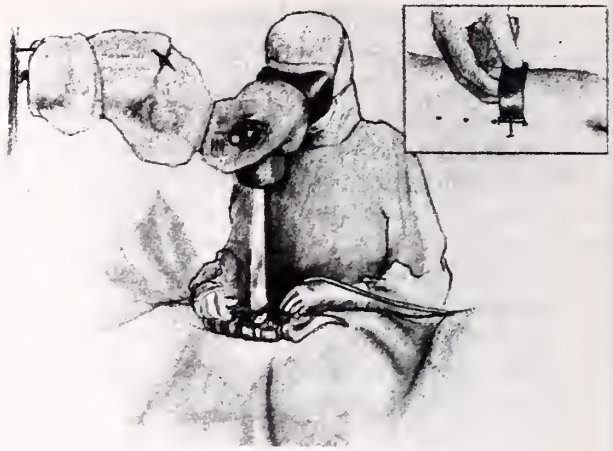


Figure 3 — Surgeon using operating microscope and microtechniques, to remove ruptured lumbar disc (microdiscectomy).[10]

Summary and Conclusions

In this article, certain anatomic, pathologic, and clinical aspects of lumbar intervertebral disc disease have been discussed in light of current neurosurgical practice. Protrusion and/or rupture of the nucleus pulposus is usually preceded by degenerative changes characterized structurally by radiating cracks in the annulus that develop and weaken its resistance to nuclear herniation.

The characteristic clinical features of back and leg pain are related to irritation and stretching of the sinuvertebral nerve by the bulging annulus and direct pressure on the nerve root, respectively. The two types of clinical findings — mechanical and neurologic — are discussed, and their significance in localizing the level of the disc and in decision-making regarding therapy options is emphasized.

While a variety of neurodiagnostic tests are available, lumbosacral spine films and myelography constitute the most important ones. An advance in myelography has been the introduction of metrizamide which is water soluble and which provides better contrast and less pain for the patient than pantopaque. Continued refinements in CT scanners may ultimately make it possible for this instrument to diagnose ruptured lumbar discs.

Many pathologic conditions can result in back and leg pain, but the common entities include herniated disc, spondylosis, spondylolisthesis, osteoarthritis, and neoplasms.

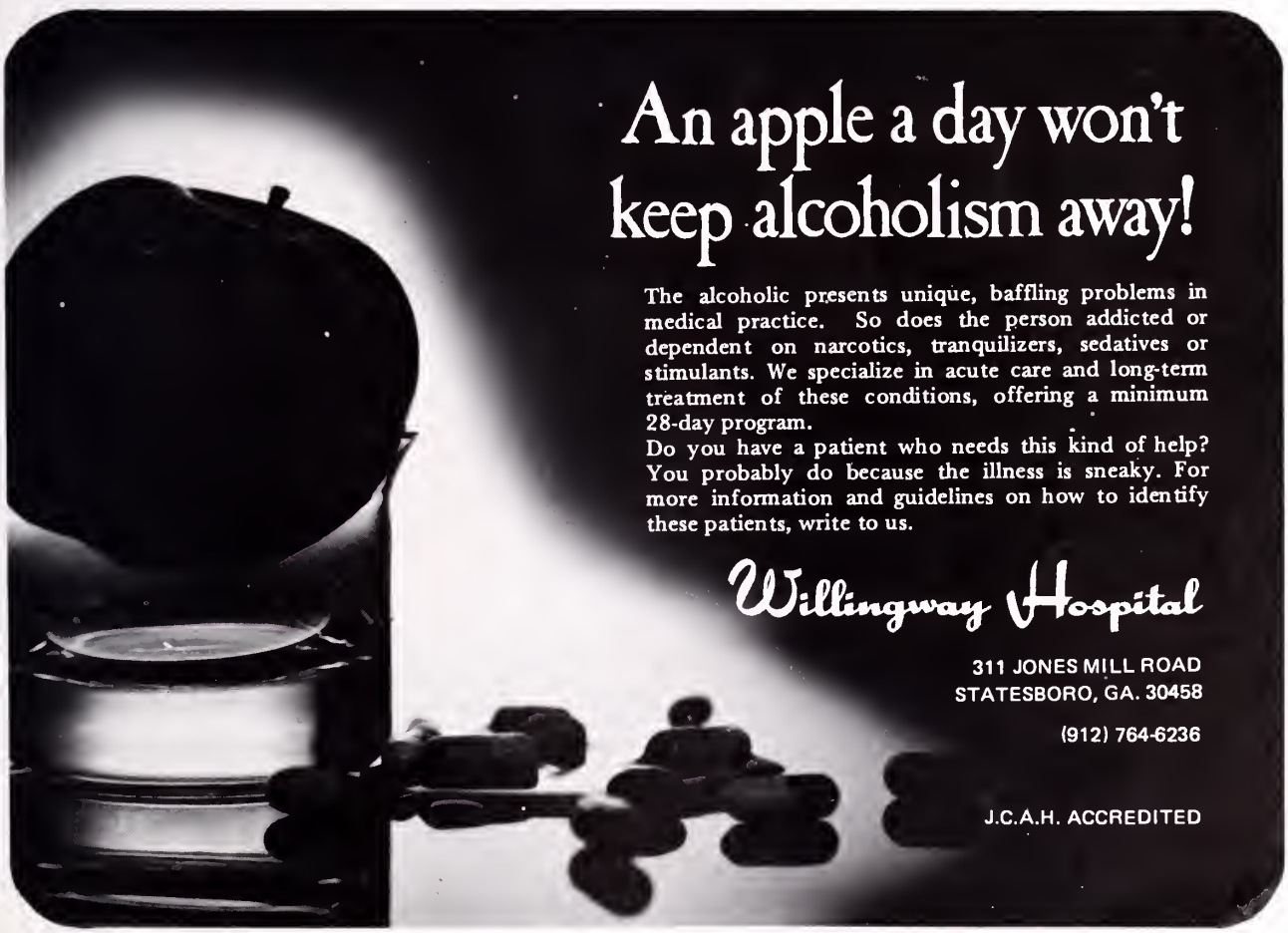
The two forms of therapy — operative and nonoperative — are discussed, and the indications for

surgery are cited. These latter include failure of conservatism and a disabling and/or potentially progressive neurologic deficit. A significant number of these patients can be successfully managed by conservative measures and approximately 85% of patients are cured by surgery.

Recent advances in lumbar disc disease which include chemonucleolysis and microdiscectomy are discussed.

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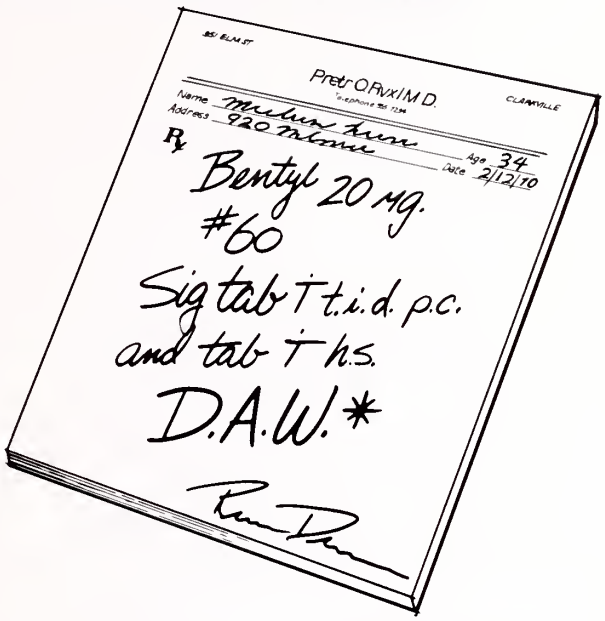
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For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and/or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.

Use with caution in patients with:

Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.

Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.

Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/ antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

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Ruptured Abdominal Aortic Aneurysm Diagnosed by Computerized Axial Tomography

DAVID ROSENTHAL, M.D., RON PIRTLE, M.D., PAUL E. STANTON, JR., M.D., and PANO A. LAMIS, M.D., *Atlanta**

THE DIAGNOSIS of an abdominal aortic aneurysm is generally made by palpating a pulsatile abdominal mass or by incidentally noting the calcific outline on an X-ray film of the abdomen. The recent use of radionucleotide aortography and B-mode ultrasonic scanning not only establishes the diagnosis of aortic aneurysm but also delineates its size.[1] The diagnosis of a dissecting, leaking, or expanding aortic aneurysm is not always easily established. Computerized axial tomography (CAT) has numerous applications, and is particularly useful in the assessment of retroperitoneal structures. With the advent of CAT, the size, luminal diameter, and amount of intraluminal thrombus of an aortic aneurysm may be accurately assessed. This report describes a case of ruptured abdominal aneurysm diagnosed by CAT scan.

Case Report

A 65-year-old white man was seen by his private physician on March 12, 1979, for the sudden onset of severe back and left flank pain which radiated to the groin and left thigh. He had no history of gastrointestinal or genitourinary illness, but he did have a history of mild low back pain. Physical examination revealed a healthy-appearing man in mild distress because of low back pain. His vital signs were stable: blood pressure 138/88 mmHg, pulse 96 per minute and regular, respirations 16 per minute, and temperature 99° F. His abdomen was mildly obese, bowel sounds were normal, and no bruits were heard. The aortic pulse was noted to be prominent but not expansile. Femoral and distal pulses were bilaterally palpable. Left paraspinal pain was elicited on straight leg raising, but no neurologic deficits were present.

Admission hemoglobin was 12 gms., hematocrit 30%, white blood cell count was 15,000 with 75% segmented neutrophiles. Electrolytes, urinalysis, and EKG were normal. A presumptive diagnosis of degenerative lumbar disc disease versus a retroperitoneal mass was made. Gallium scan and intravenous pyelogram suggested a left para psoas mass. In the course of his diagnostic evaluation, however, the patient was discharged at his own request. In early April, an outpatient evaluation was made at the VA hospital of the patient's chronic low back and leg pain, but he did not return for follow-up diagnostic studies.

On May 15, he was again seen by his private physician. His general condition had markedly deteriorated, and he complained of cough, low-grade fever, weakness, and back pain. A tuberculin skin test was markedly positive (25 mmDm.). A diagnosis of Pott's Disease of the spine with left psoas abscess was considered. An abdominal CAT scan to evaluate the retro-peritoneum demonstrated an abdominal aortic aneurysm and a para-aortic contiguous mass. This was thought to be either a ruptured aortic aneurysm or a psoas muscle abscess (Figure 1).

* Drs. Rosenthal, Pirtle, Stanton, and Lamis are from the Department of Surgery, Georgia Baptist Medical Center, Atlanta, GA. Send reprint requests to Dr. Rosenthal at 315 Boulevard, N.E., Ste. 412, Atlanta, GA 30312.

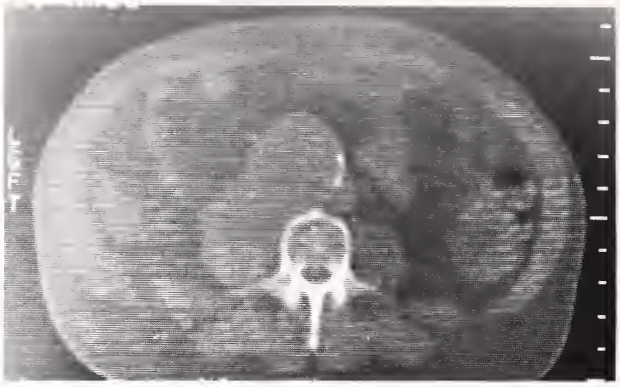


Figure 1 — Abdominal CAT scan demonstrating a 9 cm. ruptured aortic aneurysm and organized hematoma.

The patient was transferred to the Georgia Baptist Medical Center in Atlanta the same day. On admission, his vital signs, laboratory data, and physical examination were normal. An aortic aneurysm was palpable and clinically measured 8 cm. in diameter. The aneurysm was not tender to palpation. Aortography was performed and revealed an infrarenal, anteriorly displaced aortic aneurysm with no extravasation of contrast material (Figure 2).

The patient was operated on, and a 9 cm. infrarenal aneurysm was identified. No fresh retroperitoneal hematoma was found, but dense, pulsatile, fibrotic tissue was contiguous with the left side of the aorta. A portion of this mass was sent for pathologic review. Histologically, this showed mature, dense, fibrous tissue with numerous lymphocytes, capillary channels, and hemosiderin-ladened macrophages consistent with organized hematoma and previous rupture.

An aneurysmectomy was performed and after removing the intraluminal laminated thrombus, a 3.5 cm. by .5 cm. tear was identified in the posterolateral aspect of the aneurysm. The patient was discharged on the seventh postoperative day and has reported no back, groin, or leg pain since.

Discussion

The classic symptoms of ruptured abdominal aortic aneurysm are sudden, excruciating mid-abdominal or low back pain which may radiate into one or both sides of the groin.[2] The initial symptoms are usually followed by clinical shock, but with slow retroperitoneal extravasation, the patient may remain stable for hours or days.

Although elective aneurysmectomy has become a standardized procedure with less than 5% mortality rate,[3, 4] the mortality rate for ruptured aneurysmectomy remains approximately 50% in spite of 2 decades of vascular surgery.[5, 6] The early detection of an expanding, leaking, or ruptured aneurysm is therefore essential.

CAT and ultrasound scans are both excellent,



Figure 2 — Abdominal aortogram demonstrating an anteriorly displaced aortic aneurysm but no extravasation of contrast materials.

noninvasive methods for detecting any change in the size of an aneurysm. Ultrasound, although able to demonstrate an abdominal aneurysm in both the transverse and longitudinal planes, cannot assess the thoracic aorta because of air in the lungs, nor can it display accurately the distance between the renal artery and the upper margin of the infrarenal aneurysm. Occasionally, a paralytic ileus will interfere with an ultrasound examination.[7]

CAT defines intraluminal thrombus better than ultrasound, is not impaired by the obesity of the patient, and if an aneurysm extends above the renal arteries, is able to assess the degree of involvement of the thoracic aorta.[8]

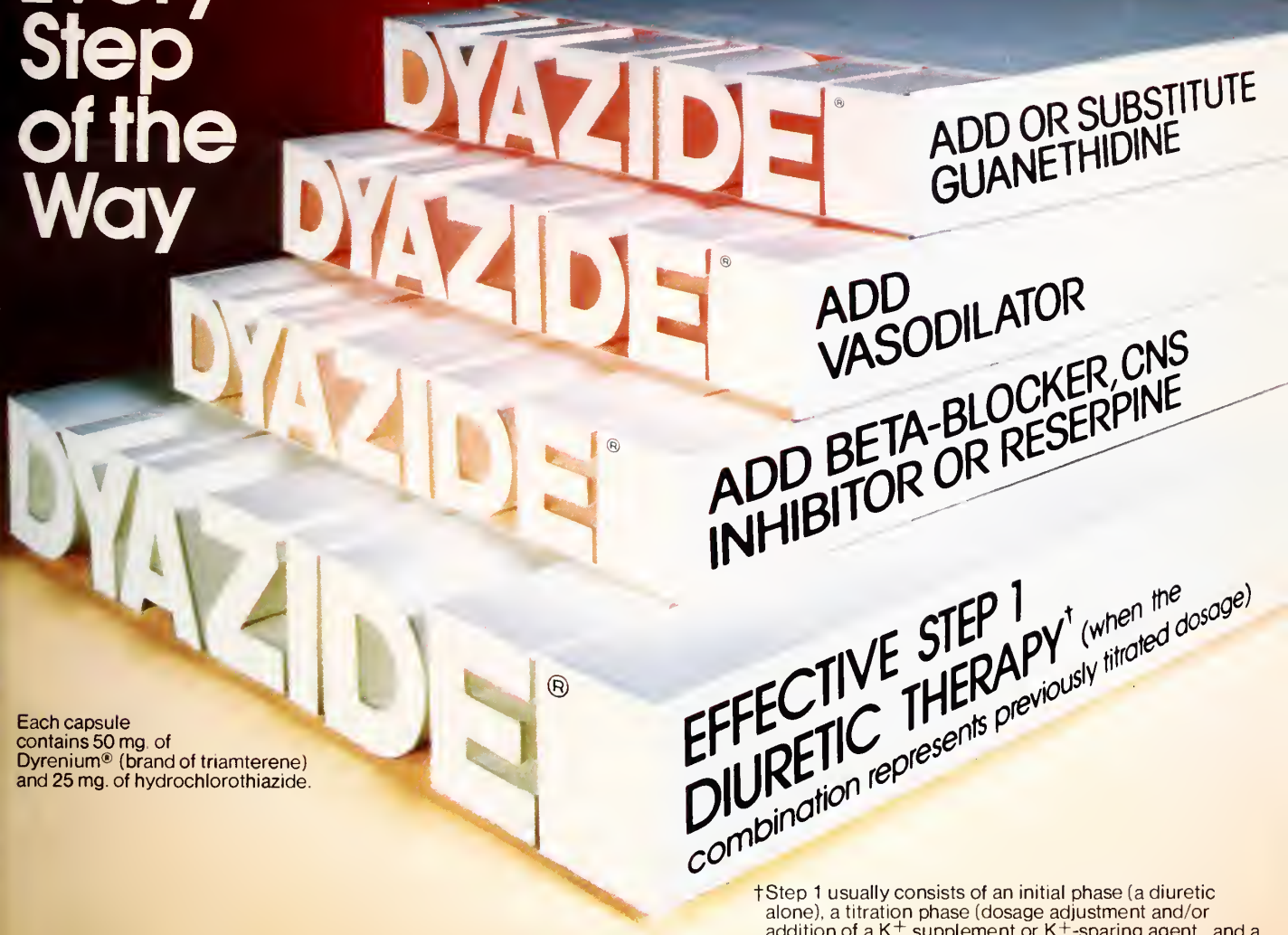
At this time we do not advocate the use of CAT as a screening test for abdominal aortic aneurysm, since ultrasound is just as accurate in demonstrating the presence of an aortic aneurysm and is less expensive. However, in patients with aortic aneurysm and suspected thoracic aortic involvement, ileus, questioned leak, or obesity, the CAT scan should be the diagnostic test of choice.

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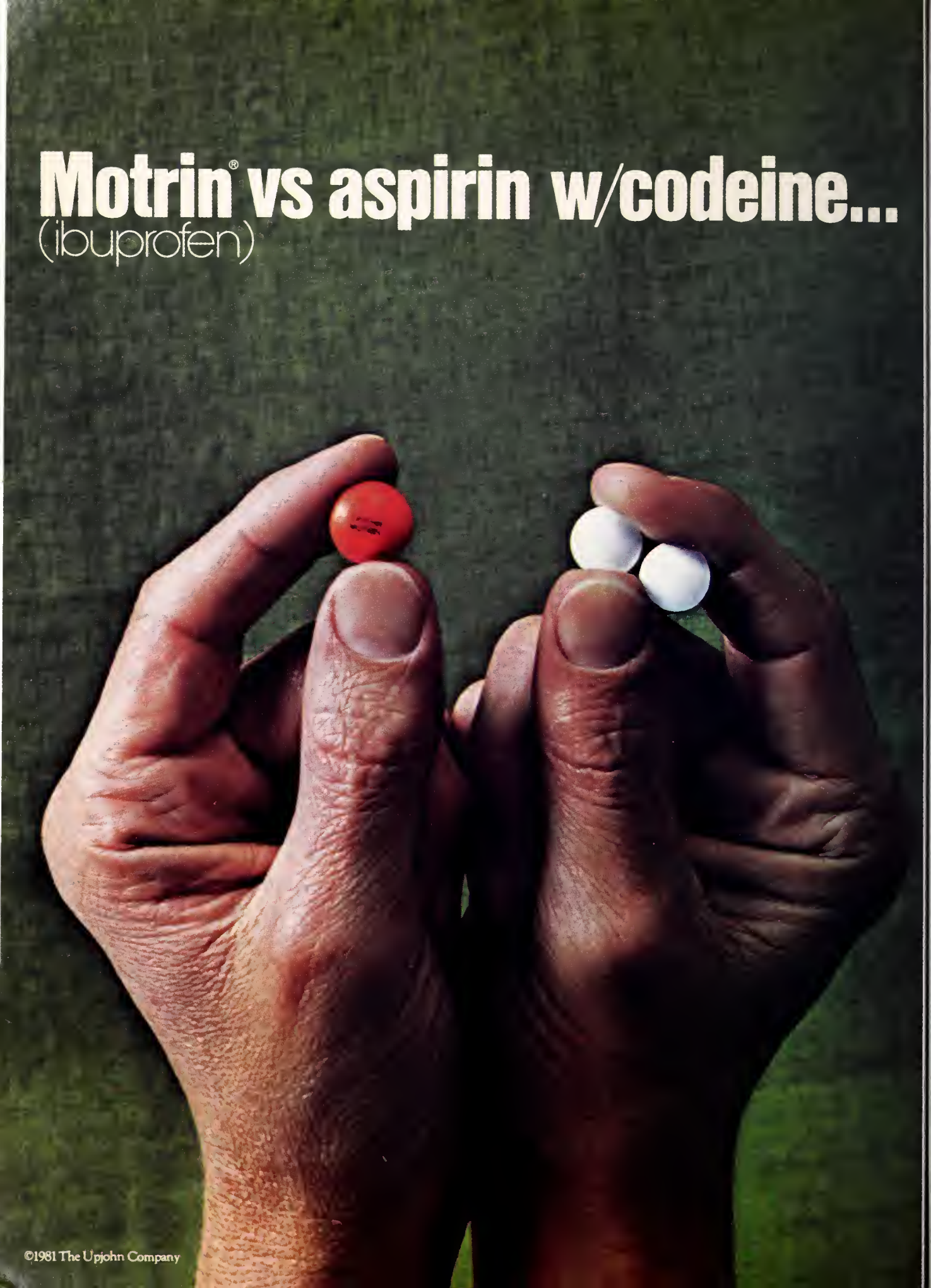
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Motrin® vs aspirin w/codeine...
(ibuprofen)

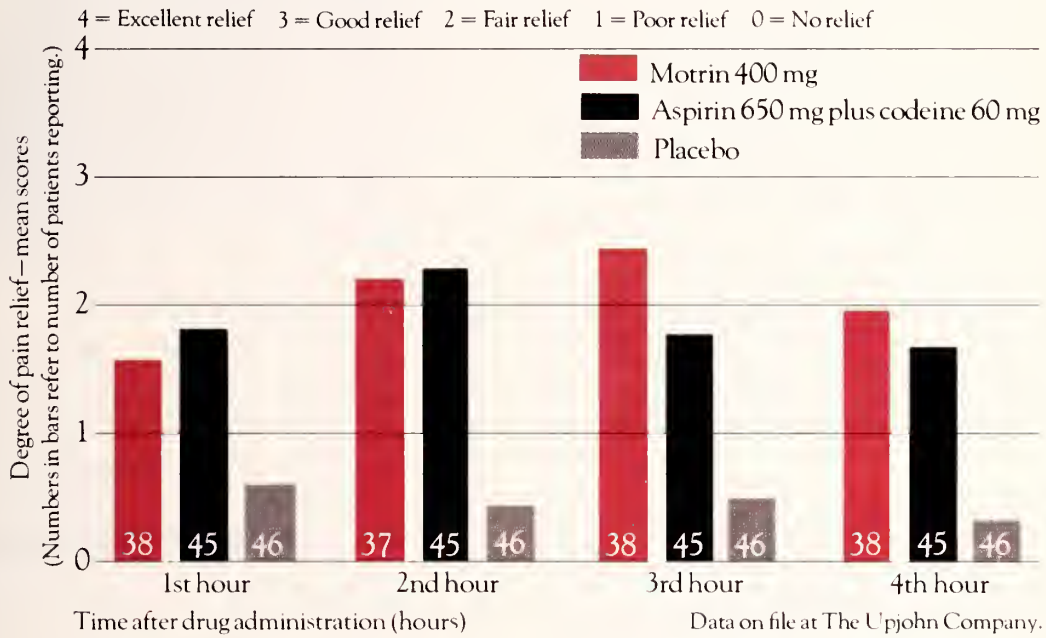


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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination



Data on file at The Upjohn Company.

One tablet q4-6h prn
For relief of mild to moderate pain:

Motrin® 400 mg TABLETS
ibuprofen, Upjohn

• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

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MARCH 1981

WHY I'M A UNITED WAY VOLUNTEER



STEPHEN GRAHAM

Home: Seattle, Washington

Career: Attorney

Age: 29

Married: One daughter

Interests: Hiking, writing, cartooning, bicycling and volunteering for United Way

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"Volunteering for United Way adds another dimension to my life. I'm putting my skills to work for the benefit of the entire community. And I'm meeting all kinds of people who are doing the same.

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The use of this drug was of moderate to marked benefit in the majority of patients receiving various chemotherapeutic agents.

Dexamethasone in the Treatment of Nausea and Vomiting From Cancer Chemotherapy

STANLEY H. WINOKUR, M.D., J. JAY BAKER, M.D., JULIAN L. LOKEY, M.D., NORMA A. PRICE, M.D., and JILL BOWEN, R.N., *Atlanta**

NAUSEA AND VOMITING are common side effects to cancer chemotherapy. Frequently, these symptoms produce physical and emotional debility which compromise the patient's ability to take cancer treatment. Antiemetics play a major role in the treatment of nausea and vomiting, but often they are ineffective in controlling these symptoms. In an attempt to find new and more effective antiemetic drugs, we recently undertook a study to determine the effectiveness of Dexamethasone (Hexadrol, Organon) as a supplement to antiemetic therapy with Prochlorperazine. This study was prompted by an empirical observation that patients taking Prednisone had less nausea when administered chemotherapy for Hodgkin's disease.

Methods

Twenty patients were analyzed in a double-blind, cross-over fashion. All patients had experienced moderate to severe nausea and vomiting while receiving chemotherapy with a variety of drugs including nitrogen mustard, Cyclophosphamide, Doxorubicin, Mitomycin, and Methyl CCNU. All patients had previously used Prochlorperazine with little or no benefit. On alternating cycles of chemotherapy, each patient received either 10 mg. of Dexamethasone (Hexadrol, Organon) or 1 cc. of placebo intramuscularly at the time of administration of chemotherapy. All patients received Prochlorperazine 10 mg. intramuscularly at the time of chemotherapy with each and every cycle. Patients were then allowed to use Prochlorperazine by rectal suppository, 25 mg. every 4 hours as needed for nausea and vomiting.

Each patient completed a questionnaire and recorded the degree of nausea and vomiting and the number of times they used Prochlorperazine following the chemotherapy. Evaluation was made every 4 hours for a total of 36 hours following initiation of the study. The degree of nausea and vomiting was scored by the designation none, mild, moderate, and severe. Upon relief of nausea and vomiting by at least two degrees, i.e. severe to mild, the result was interpreted as consistently better. If only one degree was recorded, i.e. severe to moderate, the result was interpreted as better. If no change occurred, then the patient was recorded as demonstrating no benefit. All patients completed a minimum of four double-blind cross overs.

Results

As shown in Table 1, seven patients were judged to be consistently better on each cycle of Dexamethasone. Three of these patients had complete relief of nausea and vomiting. An additional seven patients demonstrated significant improvement and were judged to be better on at least the majority of cycles. Six patients showed no benefit when comparing placebo to Dexamethasone. None of the 20 patients demonstrated any improvement with placebo. Most of the patients who showed improve-

* From the Georgia Oncology Hematology Clinic, Atlanta, GA. This study was supported by the Cecil Day Memorial Fund of the Southeastern Cancer Research Foundation and Organon Pharmaceuticals. Send reprint requests to Dr. Winokur at 105 Collier Rd., Ste. 4080, Atlanta, GA 30309.

TABLE 1 — Effectiveness of Dexamethasone Over Placebo in Patients Receiving Chemotherapy

Chemotherapy Regimen	Number of Patients	Consistently Better	Better	No Change	Percent Improved
Methyl CCNU	7	3	2	2	71%
Cyclophosphamide, Doxorubicin, Vincristine	9	3	4	2	77%
Mitomycin, Doxorubicin, Fluorouracil	1	1			100%
Mustargen, Oncovin	1		1		50%
Cyclophosphamide	2	–	–	2	0%
Total	20	7	7	6	70%

ment reported a sense of well being and improvement in their appetite.

Discussion

This study was undertaken because of the observation by several of our patients that they had less nausea and vomiting when taking Prednisone on the day of their chemotherapy. It is especially interesting in view of the report of Rich, et al.[1] in which they suggested that concomitant corticosteroid administration might lessen the nausea and vomiting in patients receiving treatment for leukemia and other hematologic malignancies. In our study, the patients who obtained benefit from Dexamethasone were receiving Cyclophosphamide, nitrogen mustard, Adriamycin, and Methyl CCNU. Although none of the patients in our study received Cis-Platinum, Rich, et al. showed a beneficial effect of high-dose Methyl Prednisolone in patients receiving Cis-Platinum, Doxorubicin, and Cyclophosphamide.[1]

The dose schedule of Dexamethasone was empiric and was chosen because it could be administered as a 10 mg. injection in only 1 cc. The results are especially impressive since the duration of action of Dexamethasone is approximately 4 hours. In addition, there were no untoward side effects recorded, i.e. dizziness, drowsiness, or disorientation. Most of the patients recorded a feeling of euphoria and a state of well being. The mechanism of action of Dexamethasone in lessening nausea and vomiting is not known. It is postulated that corticosteroids may act by hindering the synthesis of prostaglandins; however, there is no direct proof for this mechanism of action.[1] Since many of the patients reported a feeling of euphoria, it is possible that its action may be mediated by a direct effect on the central nervous system. Our conclusion from this investigation is that the use of Dexamethasone was of moderate to marked benefit in the majority of patients receiving a variety of chemotherapeutic agents. Further studies are now in progress to compare its antiemetic effect against Prochlorperazine.

Reference

1. Rich WM, Abdulhayoglu G, DiSaia PJ. Methyl Prednisolone as an antiemetic during cancer chemotherapy — a pilot study. Gynecol Oncol 1980;9:193-198.

A well-developed, efficient collection program can significantly reduce a physician's losses due to "uncollectables" and help him forestall additional losses incurred by inflation, thus obviating the need for fee increases.

Good Collections — A Matter of Survival

J. THOMAS MARTIN, *Birmingham, Alabama**

PHYSICIANS ARE BEING placed in an increasingly difficult position as far as the business side of their practices is concerned — their costs are rising with the general inflation rate, yet health care costs are being contained. As a result of this containment, fee increases may be undesirable. With this "Catch 22" situation, physicians have to look to some other method to guarantee sufficient income to maintain their practice as the cost of living rises.

The one area to look to first in order to assure the practice's survival is collection of fees. With a better collection ratio, a physician can forestall at least some of the squeeze from inflation.

Collection Is Important

A physician often does not know exactly what his collection ratio is, but if it is around 80-85%, he is incurring a loss at that rate. In an average practice this would indicate a loss between $10,000 and $20,000 of profit per doctor per year. A two-man practice with an income of $250,000 annually would lose a net income of perhaps $40,000 per year with that collection ratio.

There are unavoidable areas of noncollection. A practice that is participating in Medicaid and/or taking Medicare assignments will have some write-offs or "disallowances." Also, write-offs are inevitable for some private patients that just truly cannot pay. Notwithstanding these inevitable sources of write-offs, there is a real financial necessity to effectively collect on all other patient accounts.

Collection at Time of Service

The value of time of service collection (sometimes called point-of-service or over-the-counter collection) should be very obvious. In the first instance, a collection at the time of service is a 100% collection, while if allowed to be billed, and the practice has a good collection ratio, such as 95%, the inability to collect at the time of service would render that account worth 95¢ on the dollar at best. This does not take into consideration the reduction of value of the money by the eroding effect of inflation.

In addition, the cost of monthly billing involves added expense. This can be substantially reduced by collecting at the time of service. The cost of billing should be regarded as a variable expense, not as a fixed expense, and good management reduces variable expenses wherever feasible.

I believe that every practice in which patients visit the office should stress time-of-service collection. It can be done professionally and handled discreetly in a business manner with a polite request for payment by your receptionist. Of course, this method of collection will not be effective overnight, as you will have to create the habit among your patients.

Some patients will simply not want to pay at the time of service, and no policy will make them change. A physician necessarily should extend credit to these patients, for his main obligation is to render good health care. I do not expect any of my clients to create a 100% success with time-of-service collections — 50% is in fact a good goal to shoot for.

Adopting a Collection System

Notwithstanding an efficient and effective time-of-service collection procedure, you will still have to

* Mr. Martin is an attorney and president of Medical Management Consulting, Inc. Address reprint requests to him at 1920 Mayfair Dr., Birmingham, AL 35209.

bill a large percentage of your patients. A system I recommend requires two basic things in order to be implemented properly. The first is that one employee be responsible for implementing and following up all collections. It is essential that this person have sufficient time to work these accounts as well as adequate privacy. This job accountability greatly increases successful collections.

Secondly, the procedure requires a handy recall system to keep track of those accounts which must be contacted. The easiest system is a 3″ x 5″ file card box with dividers for the days of the present and succeeding months. When a patient is first contacted about an overdue account, his name and other information can be placed on a card and filed for follow-up on the appropriate day. Each reply the patient gives can be recorded on the file card, thus keeping a record of all responses.

Suggested Program

My suggested program requires three printed letters and telephone calls. Experience has shown that personalized letters are far more effective than stickers and written warnings, etc. on normal billings. The most successful method of collection is direct telephone contact, since it provides personal discussion and efforts toward cooperation.

Calling all the patients with slightly past due bills is too time consuming and not effective. Additionally, many of your patients may feel insulted if they intend to pay and there is only a slight delay. However, a telephone call can be very effective if done at the proper time and before a patient's intent not to pay has developed.

Prior to reaching the telephone stage, a friendly but increasingly firm series of letters can communicate best with the patient. I suggest using preprinted letters. The office secretary should type each form collection letter using your usual typewriter and the office letterhead stationery, leaving only the patient's address and other special items blank. This master letter should then be reproduced by a "photo offset" method so the resulting letter appears to be a separately typed one. This is not expensive and can be done at any local printing shop. This personalization is very important in that it shows the patient an office's individual attention to that patient's account.

With the above mentioned "recall box," file cards, and preprinted letters, the designated staff member can begin using the program. At this point, I suggest a special written set of instructions for the person responsible for collections. The remainder of this article offers a sample form of such written instructions which doctors may wish to reproduce (after appropriate modifications) for their own offices.

Collection Schedule

1. 45 days after first bill — letter #1.
2. 60 days (or perhaps 3 days after the patient should have received the 60-day bill) — telephone call.
3. 90 days — letter #2.
4. 120 days — letter #3.
5. 125 days — telephone call (very firm, to remind that it's going to collection if not paid immediately).
6. 135 days — send to collection agency or other "last resort" action. Remove the account from the current file and place it in a separate file marked "at collection."

Samples of Collection Letters

Letter #1 — Dear -----: We have not heard from you in response to our previous statements for medical services. If you have any questions about your account, please give us a call, and we will be happy to check it for you. May we hear from you soon?

Sincerely,
Office Manager

Letter #2 — Dear -----: Your account continues to show no recent payment despite our statements, letter and telephone call to you. Please tell us before the 25th of this month when you will be able to take care of your account.

Sincerely,
Office Manager

Letter #3 — (This letter should be sent registered mail, return receipt requested, in a **plain** envelope). Dear -----: Your account for our medical services is now more than 3 months overdue. Much as we regret it, we must send it to the collectors if payment is not received 10 days from this date.

Sincerely,
Office Manager

Letter #4 — Dear -----: In our recent telephone conversation, you promised payment of your account on an agreed date. We marked our records to that effect, but unfortunately we have not yet received that payment. Please let us hear from you promptly.

Sincerely,
Office Manager

Procedure When Calling

Remind the patient of his outstanding account and its date. Ask if there is any problem regarding the bill or the services. Ask when to expect payment, adding that payment must be prompt to meet your costs. When a patient promises to pay on a specific date (try to get such a promise), repeat the date, and tell

him you will note that on the record and look for payment then. Thank the patient for his cooperation. Record the patient's responses on the file card and place the card in the recall box at the promised payment date.

Telephone Promises

If the payment promised by telephone fails to arrive, follow this schedule:

1. Three days after promised, telephone to remind the patient of promise.
2. 10 days — send letter #4.
3. 30 days — send letter #3.
4. 35 days — telephone (very firm).
5. 45 days — appropriate last resort action.

If the patient promises payment on a specific date a second time, again mark this on your records and follow the above procedure. Do not continue this process for further promises; instead tell the patient to expect a phone call soon to remind him of his promise. After that, proceed down the above schedule.

General Points

1. Introduce yourself as the doctor's bookkeeper or office manager. Never say the doctor asked you to call.

2. If the patient wants to consult the doctor, make it clear that you handle the bills, and the physician has no direct knowledge of the matter. This insulates the doctor and keeps doctor-patient relationships professional and not business-like.

3. When the patient questions the services rendered, note his queries and assure the patient you will check into it and call back. Make sure you discuss it with the doctor.

4. Determine in advance what schedule of professional courtesy the doctor maintains.

Conclusion

Collection of a physician's properly earned fees requires attention to detail and persistence if it is to be effective. This collection effort is best handled in-house rather than through outside collection systems. A physician's staff can best determine the patient's special circumstances, monitor any special payment problems, and generally work with the patient for a satisfactory resolution. In order for it to work, however, a doctor has to monitor his staff's work in order to insure its efficacy and standards. With a well-developed and executed policy a doctor can provide a preferable alternative to indiscriminate fee raising.

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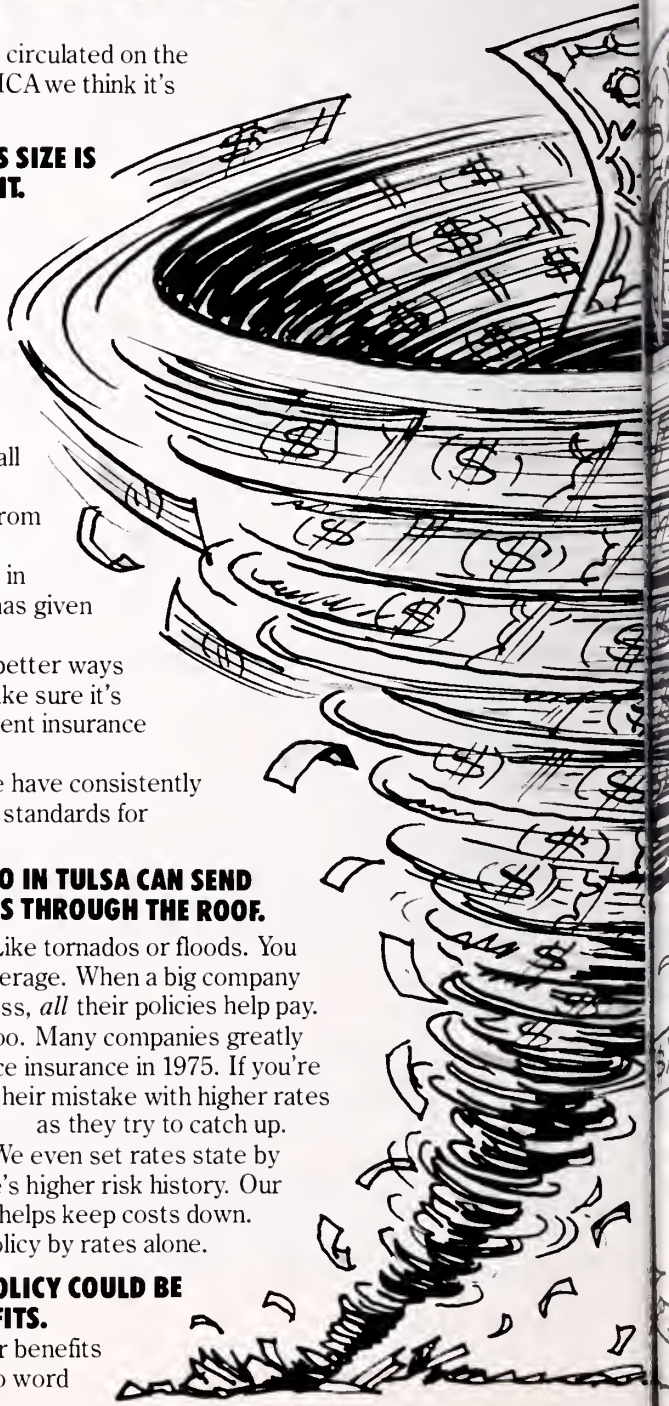


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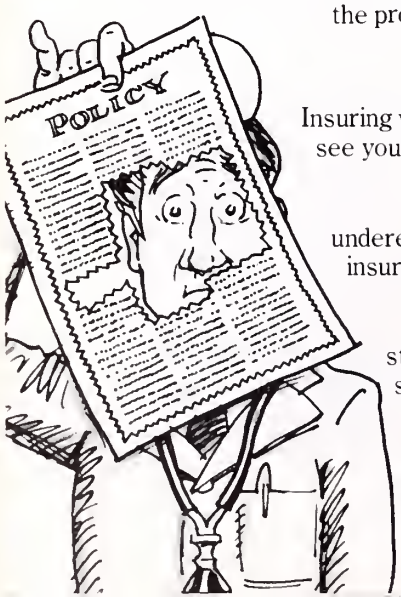
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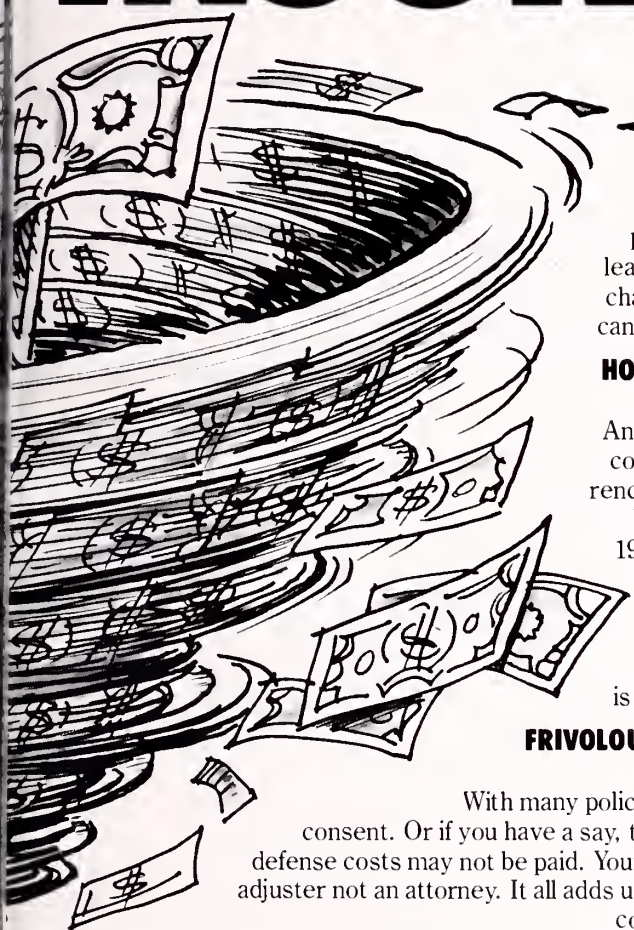
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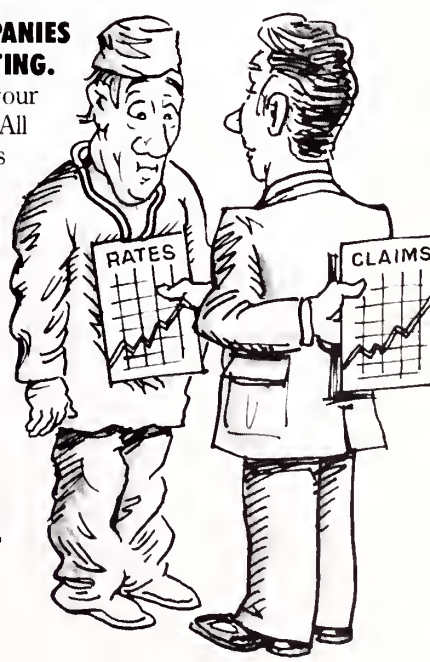


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An editorial is successful when it stirs the reader to discuss its content with other persons and to take pen in hand and write letters to the editor.

An editorial is successful when it stirs the reader to discuss its content with other persons and to take pen in hand and write letters to the editor. This is felt to be very healthy, both scientifically and intellectually, and feedback from the readership is constantly encouraged. Only by such means can a good, dynamic state of communication exist between the *Journal* and its readers. Editorial articles and comments from the readers are limited only by legal implications and the bounds of good taste. (Good writing certainly enhances the likelihood of publication as well.)

The overriding purpose of the editorial section is to furnish a forum to present current MAG policies and activities. This is facilitated by having the editor of the *Journal* serve as an *ex officio* member of the Executive Committee and the Board of Directors. The Executive Committee functions as our Publications Committee, and at its monthly meetings, functions as an advisory group for the *Journal*. The Committee imposes necessary limitations and regulations on the publication of the *Journal*. It contributes our system of checks and balances and helps steer the course of the *Journal* within broad boundaries but always within the limitations of the Medical Association's bylaws and policies. *Journal* policy is formulated by the editor, but always within the limits defined by the Executive Committee which is the immediate group to whom he must answer. In this way, the editor is not autonomous but rather functions as a member of the team.

A continuing dynamic dialogue must be maintained through the editorial pages, the letters to the editor, and the frequent contact by the editor with the members of the Publications Committee. We therefore welcome thought-provoking and provocative letters. Anything which enhances these interfaces will make for a more viable and useful *Journal*.

Edgar Woody, Jr., M.D.

New Guidelines for the Cancer-Related Checkup

For the past several decades the "Cancer Checkup" advocated by the American Cancer Society has become the accepted standard for most physicians for the basic elements in a cancer detection examination. The success of the application of these guidelines is due to their practicality, their productivity, and the public's familiarity with them. Because they have become such an established standard, it is difficult to appreciate fully now the tentativeness with which they were originally developed. The remarkable thing is that they have been so effective considering the available data upon which they had, of necessity, to be based at the time.

Now the American Cancer Society has re-evaluated the elements of a cancer checkup in the light of currently available and much more extensive information and presented them as the "Guidelines of a Cancer-Related Checkup."[1] The controversy that this has raised has been quite significant. The areas in which the questions have been raised most vocally have been those referrable to the Pap smear and chest x-ray.

There are several reasons for the controversy that has arisen, the most notable being that the medical profession was not adequately informed prior to the public release of this information. In addition, there is always the problem of changing an established program.

However, there are two other major problems that play the part, the first being a lack of knowledge of the guidelines by the failure of physicians to read the circulated information and secondly a misunderstanding of the purpose and the place of the guidelines in the practice of medicine. There is, in addition, a valid difference of opinion on the part of some individuals and organizations regarding certain of the recommendations. To put the guidelines in proper perspective, the following needs to be clearly understood.

1. The guidelines do **not** constitute a health checkup or an annual physical examination. They are very clearly the cancer-related portion of a general health program. While the American Cancer Society is in complete accord with concern about many diseases and the need for surveillance, these proposals involve only the cancer-related portion of any health checkup.

2. The guidelines are developed for the use in asymptomatic patients. There are clear modifications which must be utilized if patients are in high-risk categories. There are many high-risk categories which are not included in the guidelines for which the guidelines must be modified.

3. The guidelines are not rules. They constitute a framework upon which the individual doctor and patient must determine the best protocol for that individual.

4. The guidelines are **minimal** standards to be adapted to a given patient population. It is quite clear that all patient populations are not similar in their makeup, physically, intellectually, educationally, and in risk, and therefore these guidelines must be adapted to suit any given patient population. Again, it is emphasized that they are the **minimal** effective cancer control program.

The thrust of the current guidelines is to give a more flexible and adaptable program for patients and doctors alike. The literature that is prepared for public distribution emphasizes that any cancer-related checkup must be determined by the physician and the emphasis is on "ASK YOUR DOCTOR." It is this understanding by the American Cancer Society, the physician's essential role in cancer-related checkups, that must be emphasized and understood to appreciate the purpose of the current guidelines. **No** guideline is intended to or can pre-empt the physician's responsibility in determining the patient's need.

Two extremes in a cancer detection program, both of which are on the face of it absurd, illustrate the end point in either direction. First, the most effective cancer detection program which could be advocated would be a daily physical examina-

tion with all of the diagnostic procedures available. This is patently absurd and impossible. At the other end of the spectrum would be the least expensive of all diagnostic procedures, and that is none. Every patient's cancer will be diagnosed if allowed to run to the point that it is clinically obvious, and then we have no diagnostic problems. Obviously, somewhere in between we must choose a set of procedures with some systematic evaluation of the time interval necessary to make them reasonable, practical, and effective.

The difficulty in balancing the numerous factors necessary to find an appropriate recommendation is extremely difficult as many elements are involved. Some of the problems may be illustrated as follows:

A cancer detection test may be extremely effective in detecting early cancer in the majority of cases. However, if there is no effective treatment for that particular cancer then no type of cancer detection is of benefit to the patient, however good its ability to find cancer.

In other circumstances a cancer detection procedure may be minimally effective in finding a few cases out of many, but if in those few cases the cancer can be cured at the stage of its identification it may be a clinically worthwhile test. To oversimplify, we can say that a test which finds five out of 100 cancers at a curable stage is a better test than one which finds 100 cancers out of 100 at an incurable stage.

Practicality is also an essential element in evaluating cancer detection procedure. A particular procedure would be of no consequence if patients do not accept the examination. Therefore, the tests must be practical, feasible, and financially reasonable. The following criteria must be met by a test advocated in the general public application:

1. The particular test must be demonstrated to be effective in reducing morbidity and mortality from cancer.
2. The medical benefits must outweigh the medical risk. A "suspicious" result which leads to risky diagnostic adventure which may not confirm a diagnosis of cancer must be subject to scrutiny before it can be advocated as a reasonable test.
3. The test must be practical and feasible. It does no good to recommend the use of an examination which is not available to 90% of patients or physicians.
4. The test must be financially feasible.

To evaluate results with diagnostic studies is extremely difficult. As every physician knows, the length of time from the detection of a disease to death does not necessarily mean that the diagnostic study has altered the course of disease. A test which finds a cancer in its second year of existence rather than the sixth year will appear to have extended life by 4 years even if all patients die at a given 10-year interval, while in reality the detection study has made no difference in the survival rate.

In summary, the guidelines are established on a sound basis. They are reasonable, they are flexible. They are not prohibitive, and they give the physician a great deal of latitude in adapting them. Most of all they are alterable. If, indeed, time and experience indicate they are not the optimum program, they should be and will be changed accordingly.

Surely after 25 years we have learned something about cancer detection, and advocated programs should be changed accordingly. These guidelines will change in the future as they should and as our knowledge increases.

John Page Wilson, M.D.
Chairman, Executive Committee
American Cancer Society

Reference

1. Guidelines for the cancer-related check-up. Recommendations and rationale. Holleb AI (ed) CA: A Cancer Journal for Clinicians 1980;30:4.

Should Health Care Practitioners Be Allowed to Exculpate Themselves From Liability? — *You* Be the Judge

ROBERT N. BERG and THOMAS D. HARPER, *Atlanta**

THE CASE TO BE decided by you this morning is *Porubiansky v. Emory University et al.* The facts of the case are not in dispute.

The Plaintiff applied and was accepted as a patient of the Emory University School of Dentistry Clinic. She was advised that all treatment at the Clinic would be by dental students and employees under the direction of a licensed dentist or by a licensed dentist. The Clinic, an adjunct of the Emory University School of Dentistry (which is involved primarily in dental research and the education of dental students), charges less for treatment than is generally charged by licensed dentists practicing in the Atlanta area.

Prior to accepting a patient for treatment, the Clinic requires that each patient execute an information-consent form in consideration of the dental services to be rendered by the Clinic to the patient. This form, which was signed by the Plaintiff in the case before you, read in pertinent part as follows:

EMORY UNIVERSITY SCHOOL OF DENTISTRY
INFORMATION-CONSENT FORM

"Dear Prospective Patient:

Please read the following information carefully to avoid any misunderstanding:

"Emory University School of Dentistry conducts its Dental Clinic to teach and prepare dental students for the practice of Dentistry."

. . .

"In consideration of Emory University School of Dentistry performing dental treatment, I do hereby expressly waive and relinquish any and all claims of every nature I or my minor child or ward may have against Emory University, its officers, agents, employees, or students, their successors, assigns, administrators, or executors; and further agree to hold them harmless as a result of any claim by said minor child or ward, arising out of any dental treatment rendered, regardless of its nature or extent."

The Plaintiff received numerous treatments from the Clinic and paid her charges separately for each treatment. During one such treatment, one of the licensed dentists employed by the Clinic removed the Plaintiff's impacted tooth.

* Prepared at the request of the Medical Association of Georgia. Messrs. Berg and Harper are associates in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

Subsequently, the Plaintiff instituted the action before you today against Emory University and the dentist employed by the Clinic, alleging that the negligent removal of her impacted tooth resulted in her jaw being broken. The Defendants not only deny that they broke the Plaintiff's jaw, they also contend that the exculpatory clause contained in the Clinic's information-consent form serves to release them from any liability to the Plaintiff.

Mr. Thomas D. Harper, counsel for the Plaintiff, will speak first, followed by Mr. Robert N. Berg, counsel for the Defendants.

Mr. Harper: The issue in this case is whether professionals engaged in the provision of medical services may exempt themselves from liability for future acts of negligence by requiring that a patient sign a release before any services are provided. In this litigation, although the release contained in the Clinic's information-consent form relates specifically to services by students, it is important to note that the allegedly negligent individual is an employee of the Emory University School of Dentistry and not a student at that school.

American jurisprudence has long recognized the general proposition that a party may not contract against the effect of his or her own negligence and that agreements which attempt to do so are invalid.[1] Georgia law, however, permits certain individuals to protect themselves from the possibility of future acts of negligence.[2] Georgia law **is** consistent with the established principles of American law to a certain extent. Georgia law, like most other jurisdictions, prohibits exculpatory clauses where the provider of services is vested with a public duty.[3]

The Georgia Code, §20-504, specifically enumerates certain contracts which violate public policy, and I am sure that my distinguished adversary will argue that these enumerated contracts are the **only** contracts which should be found to be against public policy. In at least three instances, however, Georgia courts have found that contracts which do not come within the limitations of §20-504 nevertheless violate public policy. These cases involved contracts dealing with the landlord/tenant relationship,[4] the innkeeper/guest relationship,[5] and the gas company/customer relationship.[6] Additionally, the Supreme Court of Georgia has held that an insurance contract may violate public policy when it requires a patient to forego medical treatment in order to become eligible for insurance benefits.[7]

It is impossible to conceive of any professional relationship which could entail stronger consideration of public duty than the relationship of physicians to their patients. The relationship is one founded upon the patient's trust and reliance in the superior training and skill of the health care practitioner. The beneficiaries of that trust — such as physicians or dentists — are charged with a public duty which requires that they conform to standards more exacting than those imposed by the morals of the market place. The fact that a dentist or doctor may make a better bargain for himself because of his patient's condition does not authorize a violation of a public trust. In the absence of a rule prohibiting such an exclusion, the public would be placed at the mercy of another's negligence.

The Georgia Code specifically provides the standard of care for the administration of medical treatment: the physician must exercise a **reasonable** degree of skill and care.[8] The Defendants are attempting to change this legislatively-mandated standard of care by private contract as a consequence of their superior bargaining position. Health care practitioners should not be allowed to lower the standard of care to which they will be held through contractual manipulation. Other professionals cannot do so. For example, a similar contractual limitation of liability by attorneys has been expressly denounced by the Canons of Ethics of the Georgia Bar.[9] The duties of a physician or dentist to his or her patient, as recognized by the medical profession, by the legislature, and by the courts of this state, do not permit the invocation of such a lower standard of responsibility.

Mr. Berg: The case before you, while having significant legal and practical ramifications, actually addresses one simple question: Should the constitutionally-

granted right of freedom of contract be impaired on the basis of a judicial determination of public policy?

As counsel for the Plaintiff has admitted, it is well-established in Georgia that parties are free to contract on any terms and about any subject matter in which they have an interest, except in cases where the terms or subject matter of the contract are prohibited by statute or public policy. The general rule in Georgia is that a party may exempt itself by contract from liability to the other contracting party for injuries caused by negligence, without the agreement being void as contravening public policy. Applied to the facts in the case before you, the question is quite clear: Is the contract between the Plaintiff and the Defendants, in which the Plaintiff released the Defendants from liability — and which would otherwise clearly be authorized under Georgia law — is it unenforceable as a result of being in contravention of public policy of this state?

The Georgia legislature has specifically delineated the types of contracts which it has deemed to be in violation of public policy. Accordingly, contracts will not be enforced which "tend to corrupt legislation or the judiciary, . . . [which are] in general restraint of trade, . . . [which] evade or oppose the revenue laws of another country"; also void as against public policy are "wagering contracts, contracts of maintenance or champerty," and contracts or agreements made in connection with a building construction contract, which agreement purports to indemnify the contractor against liability for negligence.[10] From this, it is clear that the agreement entered into in the present situation is not one viewed by the Georgia legislature as being against public policy.

Nevertheless, as the plaintiff's counsel has stated, Georgia courts in certain instances have gone beyond the expressed intent of the Georgia legislature and determined that contracts involving other subject matters are also void as against public policy. In that regard, however, the judicial power to void such contracts has been exercised only with supreme caution, and in cases free from doubt. As set forth in one Georgia case:

> "The power of the courts to declare a contract void for being in contravention of a sound public policy is a very delicate and undefined power, and, like the power to declare a statute unconstitutional, should be exercised only in cases free from doubt. The authority of the lawmaking power to interfere with the private right of contract has its limits, and the courts should be extremely cautious in exercising the power to supervise private contracts which the lawmaking power has not declared unlawful."[11]

Counsel for the Plaintiff cites three cases in which Georgia courts have determined that contracts otherwise not invalidated by the Georgia legislature should nevertheless be void as against public policy. These cases are easily distinguishable. Unlike the present situation, in which the **relationship** between the parties is not regulated by statute, all three cases cited by counsel for the Plaintiff dealt with relationships which were regulated by statute. The Georgia Code contains specific statutes governing the landlord/tenant relationship and the relationship between an innkeeper and its guests; it also contains regulations (including safety regulations) specifically governing the relationship between a gas company and its customers.

Additionally, the contract in the present situation differs from other contracts held to be in violation of the public policy of this state because of the nature of the Clinic itself.

The Clinic is not a landlord; it is not a hotel or inn; it is not a gas company. Rather, it is an institution of learning engaged primarily in the teaching and training of dental students. The Clinic does not hold itself out as a treatment facility to the public. While the Clinic does in fact treat members of the public and holds itself out as willing to perform services for the public, it does so not as a service to the public but as a means of educating the future dentists of this state. If this Court chooses to void the contract in the present situation as being against public policy, the teaching

function of the Clinic, which is certainly an important function and in the best interests of the residents of this state, will in effect be undermined.

Finally, if you will look at the situations deemed, either by the Georgia legislature or by the courts, to be in violation of public policy, you will note that the relationship between the parties are rather one-sided. That is, the parties attempting to exculpate themselves from liability have had a decisive advantage in terms of bargaining over the other contracting parties. Moreover, these cases often have involved services for which the person seeking such services could not go elsewhere, usually as a result of either the exculpation clauses being inserted in contracts throughout the industry (such as in landlord/tenant cases and cases involving hotels and inns) or the entity providing the services being the only entity who did so, such as in the gas company case. In the present situation, the Plaintiff was not required to seek out the services of the Clinic; she did so of her own accord. Moreover, there is no evidence before you that the practice of using exculpation clauses in connection with the provision of dental services is an industry-wide practice. In other words, the Plaintiff **chose** to seek the services of the Clinic, and, in doing so, exercised her right of freedom of contract by signing the Clinic's information-consent form. The Clinic did not force her to do so, nor did the Plaintiff face the alternative of being unable to obtain dental services elsewhere.

For all of these reasons, you should find that the Defendants are exculpated from liability on the basis of the signed, valid, and enforceable contract executed by the Plaintiff and the Defendants.

As the judge in the case before you, how do you decide?

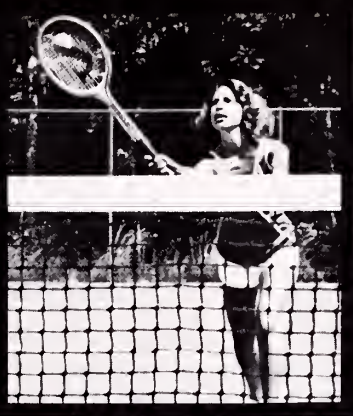
On Nov. 26, 1980, the Georgia Court of Appeals, reversing a lower court judgment in favor of the Defendants, held that the exculpation clause contained in the Clinic's information consent form was void as being against public policy of the State of Georgia. The Court's decision was based primarily on the arguments set forth in this article by Mr. Harper.

The case described in this article, *Porubiansky v. Emory University et al.*, involved a decision rendered by the Georgia Court of Appeals, which decision is subject to appeal to the Supreme Court of Georgia. Recently, the Supreme Court of Georgia granted certiorari to hear the *Porubiansky* case, and oral argument will be held before the Supreme Court in the near future.

The Supreme Court has the power to either affirm or reverse the decision of the Georgia Court of Appeals, in whole or in part, with or without comment. Accordingly, it is possible that the opinion discussed in this article, although representing the current state of the law in Georgia, may be substantially altered or modified by the Supreme Court. We will inform you of the ultimate decision reached by the Supreme Court in a subsequent issue of the *Journal*.

Notes

1. See, 61 Am. Jr. 2d, *Physicians* §107 (1972); Anno., 6 A.L.R. 3d 704, 705 (1966).
2. *Hawed v. Central of Ga.*, 117 Ga. App. 771, 772, 162 S.E.2d 14 (1968).
3. See, e.g., *Seaboard Coast Line Railroad v. Freight Delivery*, 133 Ga. App. 92, 93, 210 S.E.2d 34 (1974).
4. *Country Club Apartments v. Scott*, 154 Ga. App. 217, 220, —— S.E.2d ——, aff'd, —— 240 Ga. —— (October 1, 1980).
5. *Ellerman v. Atlanta American*, 126 Ga. App. 194, 195, 191 S.E.2d 295 (1972).
6. *Bishop v. Act-O-Lane Gas Service*, 91 Ga. App. 154, 85 S.E.2d 169 (1954).
7. *Strickland v. Gulf Life*, 240 Ga. 723, 242 S.E.2d 148 (1978).
8. *Ga. Code Ann.* §84-924.
9. Rule 3-106; EC6-6.
10. *Ga. Code Ann.* §20-504.
11. *Equitable Loan Co. v. Waring*, 117 Ga. 599(1), (2), 49 S.E. 320 (1903).






Ridgeview Institute

Ridgeview Institute is a private, non-profit, fully accredited psychiatric hospital located less than 20 minutes from downtown Atlanta. Ridgeview offers three individual, fully-accredited, separately-housed programs in alcohol and drug treatment, adult, and adolescent psychiatry.

A full range of treatment methods are available and a high staff-patient ratio assures individualized attention. Bright, warm colors and sunny interiors provide a non-institutional atmosphere as patients participate in a wide range of theraupetic and recreational activities.

Alcohol & Drug Program

This program offers a multi-dimensional treatment and rehabilitation program aimed at helping those afflicted with the disease of alcoholism or drug addiction. A variety of groups and activities are led by trained, experienced addiction counselors and therapists. Alcoholics Anonymous and Narcotics Anonymous are intrical parts of the program.

Adult Psychiatric Program

Under the psychiatrist's leadership, patients on the adult unit are treated individually for depression, anxiety, schizophrenia, manic depressive illnesses, personality disorders and other similar disfunctions. The physician and treatment team work closely together on the patient's assets as well as problems in the social, psychological and physical areas.

Adolescent Program

This unique program offers a wide range of treatment modes and emphasis is placed on resolving the emotional, behavorial and educational difficulties involving this age group. A fully accredited school lets the young people continue their education during the inpatient process. Classes are small and credits earned at Ridgeview are transferred back to their schools.

Ridgeview INSTITUTE

3995 South Cobb Drive

Smyrna, Georgia / (404) 434-4567

FROM DIETARY COMPLAINTS

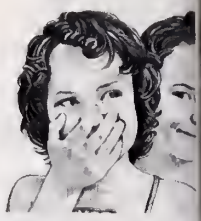

"Too Bland"


"Tasteless"


"No Variety"


"Hard To Cook"


"Only Cottage Cheese?"


"Daddy's Dull Diet"

TO COMPLIANCE



INTRODUCING New Age™ SANDWICH SLICES

- **90% less cholesterol**
- **75% less saturated fat**

Now, New Age—a cheese substitute made with vegetable oil—provides the good taste of process cheese without its restrictively high cholesterol content.

New Age has 90% less cholesterol, 75% less saturated fat, yet provides all the protein, vitamins and minerals of process cheese... good news for all health-conscious patients!

AMERICAN
SWISS
SMOKEY
HOT PEPPER



New Age™ is consistent with the cholesterol-control, low-fat recommendations of the third edition of **The American Heart Association Cookbook.**

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-Cl™



For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
 The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-CI™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.



F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani); folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye, tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-S1
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QR5 complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes:

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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Pioneers in Medicine For the Family

Nuclear Cardiology

MILTIADIS A. STEFADOUROS, M.D., *Augusta**

DURING THE PAST several years, nuclear cardiology — the use of radioactive substances in the diagnosis and assessment of cardiovascular disease — has evolved into a system of highly sophisticated and reliable diagnostic techniques. The spectrum of diagnostic applications of nuclear cardiology is continually expanding and is wide enough to attract the attention of non-cardiologist physicians. In this brief review, only the most established of these techniques will be presented. The procedure common to all of them involves the injection of a radioisotope (radionuclide) in a peripheral vein, followed by external detection — by either a single-probe or a scintillation camera — of the radiation it emits during its passage through the cardiac chambers and lungs or after its deposition on the myocardium. The selection of a particular radionuclide, as well as the mode, timing, and duration of detection of its scintillation activity, depend on the specific aims of the study.

Myocardial Perfusion Scintigraphy (Thallium Scan)[1, 2]

Although coronary angiography detects the presence of partial or complete occlusion of the coronary arterial lumen, it gives no information on the status of myocardial perfusion distal to the obstruction except when severe ischemia has resulted in regional wall motion abnormalities. This information can be obtained by the "thallium scan." After intravenous infusion of 1.5 mCi of the thallium-201, this isotope reaches first the right and then the left side of the heart and as it passes through the coronary arterial system, it is partially extracted by and distributed in the myocardium in proportion to its blood perfusion. Thus, the isotope uptake in areas with diminished or no perfusion due to myocardial ischemia or myocardial infarction (MI), will be less than that of other, normally perfused areas, and on the static images obtained at different projections by an external scintillation camera, the ischemic areas will be visible as areas of diminished radioactivity (cold spots), as compared with regions of normal perfusion. Occasionally, the difference in radioactivity, reflecting the degree of ischemia of the affected wall at the time of the study, may be too small to be recognized. This obstacle can be overcome if the isotope is injected in the final stages of a standard exercise (treadmill or bicycle) stress test, and the image obtained immediately afterward. This is because exercise provokes or intensifies pre-existing myocardial ischemia in coronary artery disease, thus accentuating the difference in myocardial perfusion and, hence, isotopic uptake between diseased and normal myocardium. An area with decreased uptake seen at exercise might be due to either myocardial ischemia or previous MI.

* Dr. Stefadouros is Associate Professor of Medicine, Section of Cardiology, at the Medical College of Georgia. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Miltiadis Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

Distinction between the two can be made by a second scintigram obtained at rest, 3-4 hours after termination of exercise. Because of redistribution of the isotope, the defect in radioactivity will disappear if it were due to exercise-induced ischemia but will persist if MI were its cause.

The sensitivity and specificity of the exercise thallium scan in detecting myocardial ischemia (75%-95%) are superior to those of exercise electrocardiography.

Myocardial Scintigraphy With Infarct-Avid Agents[3, 4]

The exercise thallium scan may detect myocardial ischemia and distinguish it from MI, but it permits no differentiation between acute and chronic MI. However, acute MI can be diagnosed by use of radiopharmaceuticals that are selectively deposited in damaged myocardium. The most popular of these is technetium pyrophosphate. Owing to its affinity to both damaged tissue and calcium, this agent is selectively accumulated in the peripheral zone of an acute MI, where perfusion is reduced to a degree severe enough to result in tissue damage with subsequent calcium deposition yet adequate enough to render the region accessible to the isotope. On the scintigram, acute MI is identified as an area of increased activity (hot spot) equal to or greater than that of the sternum which, being a tissue rich in calcium, is also visualized. It should be remembered that to detect acute MI the study should be done within 12 hours to 6 days after its occurrence. A study done after the first week may at times be positive. The sensitivity and specificity of this method in detecting acute MI ranges from 80% to 90%, but the values are much lower and the technique less reliable in patients with non-transmural MI. In addition, the method may detect unstable angina in the absence of evidence of MI. High energy cardioversion, ventricular aneurysm, valvular calcification, and myocardial contusion are but a few of several conditions known to give a false-positive result.

Radionuclide Angiocardiography

First-pass studies:[5] After intravenous bolus injection of technetium pertechnetate, the tracer remains intravascular during its first pass through the heart and lungs thus permitting instantaneous external monitoring of its time-activity curve, using a single-probe detector (nuclear stethoscope) as well as a pictorial representation of the distribution of its radioactivity obtained by a scintillation camera. The time-activity curve obtained from the precordium provides the means for quantitating the performance (ejection fraction) of the right and the left ventricles since the tracer reaches these chambers sequentially during its first transit through the heart. If the blood volume is also determined independently, the cardiac output can be measured from the time-activity curve. By placing the probe over the lung rather than the heart, the pulmonary dilution curve can be obtained. Computer analysis of this curve permits detection and quantitation of left-to-right shunts. Similar precordial time-activity curves and information derived from them can also be obtained by using a scintillation camera. This camera, in addition, permits subjective analysis of the anatomy of the major vessels and the heart, whose chambers are visualized on sequential frames obtained during the first passage of the tracer. Thus, intracardiac shunts are readily detected, and the presence of enlargement of individual heart chambers can be identified and used to support or refute a specific diagnosis of valvular heart disease.

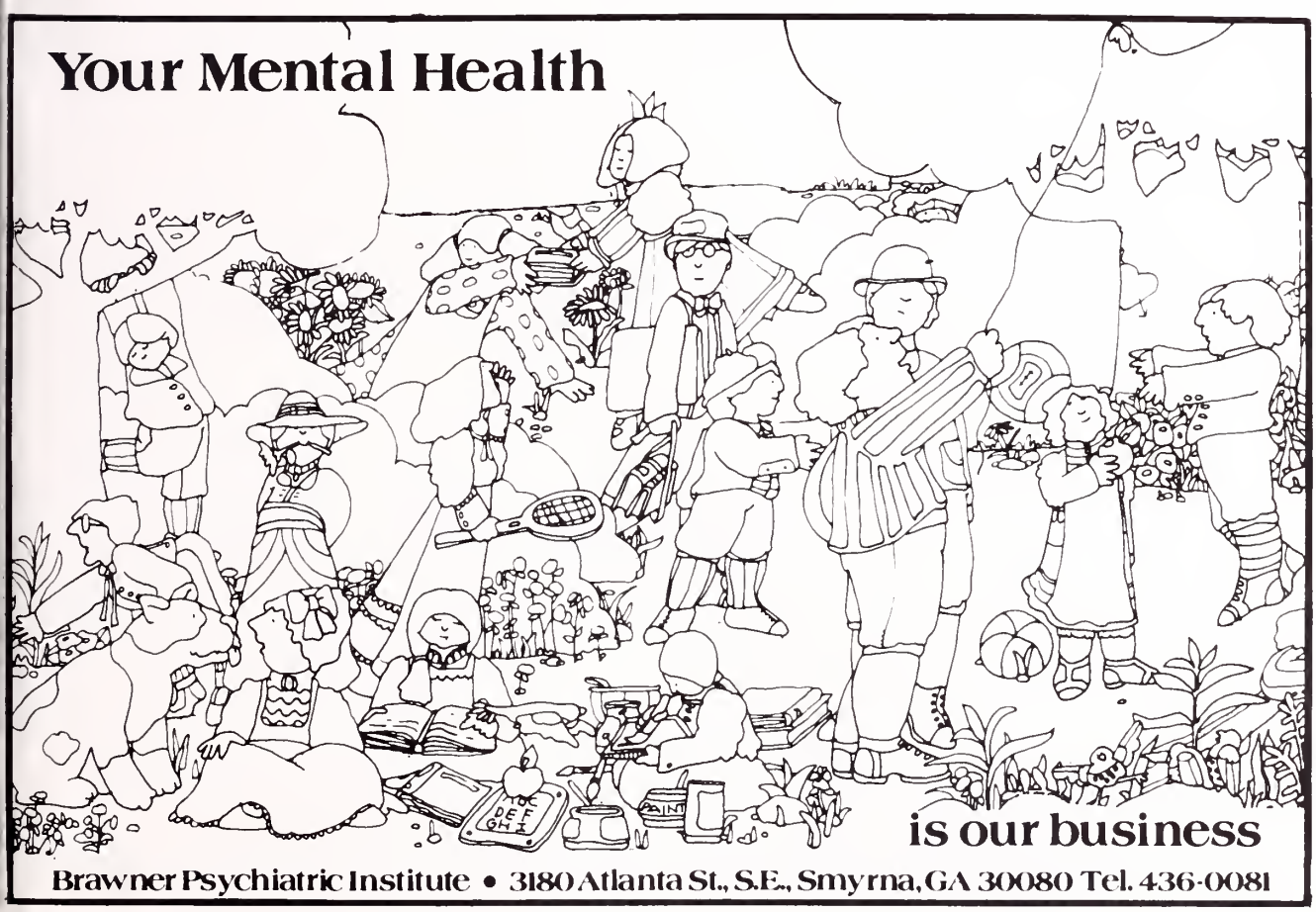
Equilibrium Studies:[6] In the first-pass studies, once injected, technetium pertechnetate leaks rapidly out of the intravascular compartment so that acquisition of data is limited to a few cardiac cycles. This limitation can be remedied by using technetium pyrophosphate instead to tag, in vitro or in vivo, the patient's own red blood cells, thus trapping the tracer intravascularly and permitting considerable extension of the acquisition time, higher scintillation counts and, hence, enhanced resolution. Within a few minutes, a state of equilibrium is reached whereby the tagged red cells are evenly distributed in the intravascular compartment, and their radioactivity can then be monitored from the precordium in several projections,

using either the single probe or the scintillation camera. Using the ECG as a triggering signal, each cardiac cycle is equally divided into 20-30 consecutive intervals. Scintillations acquired during the first, second, third, etc. interval from several cardiac cycles are stored into the respective frames no. 1, 2, 3, etc., so that eventually 20-30 frames have been generated. Rapid sequential projection of these frames provides a dynamic image of the beating heart, closely resembling a cineangiogram. Computer analysis of these frames and of the ventricular volume curves derived from their scintillation counts, permits reliable assessment of ventricular function (ejection fraction) and detection of regional ventricular wall motion abnormalities and their response to exercise or to various pharmacologic interventions.

A good deal, but not all, of the information obtained by nuclear cardiologic techniques is also available by cardiac catheterization and angiocardiography. However, since the former are noninvasive, convenient, and therefore suitable for repeated follow-up applications in a given patient, these nuclear techniques are becoming increasingly popular and preferred over invasive techniques such as cardiac catheterization.

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president's letter



A Positive Desire

THIS PAST YEAR has been a most enlightening and rewarding experience. My determination has been to communicate and to be effective by making every individual feel worthwhile. My personal goal has been to do the very best I could — every time I could. I have tried to perform with substance rather than with style.

My positive direction throughout this past year has been to work together in unity of purpose. Maximum effort has been exerted to soothe apprehensions and tensions and to maintain our sense of values along with our confidence.

The Administrative staff of our Association has competently and effectively performed on a wide range of activities with demonstrated expertise in many fields. However, the number one strength of staff is its loyal dedication to MAG, to the work of the best interests of its members.

It is certainly true that most of life's troubles come from misunderstanding and lack of communication. If we know each other, we can understand each other. If we trust each other, we can work together in unity of purpose. If we work together in unity of purpose, I honestly feel that there is nothing worthwhile which we cannot accomplish. Success will then become a journey and not a destination.

You graciously provided me with the opportunity to serve. It is my dominant desire that I have done so in a dignified and successful manner. I can assure you that I did my damnedest.

Gratefully,

H. Hilt Hammett Jr., M. D.

H. Hilt Hammett, Jr, M.D.
President, M.A.G.

NEW MEMBERS

Andrus, Thomas R., Jr., Richmond—I&R—D
Medical College of Georgia, Dermatology, Augusta 30912

Ballenger, Clarence E., Richmond—I&R—N
Medical College of Georgia, Neurology, Augusta 30912

Berry, Arnold J., MAA—ACT—An
1364 Clifton Rd., NE, Anesthesiology, Atlanta 30322

Bohannon, Donald S., Ga. Med. Soc.—N-1—AN
5010 Paulsen St., Ste. 5, Savannah 31405

Cankir, Kamil S., Coweta—ACT—GP
P.O. Box D, Grantville 30220

Cheeks, Eddie R., Richmond—N-2—OBG
Medical College of Georgia, CK 165, Augusta 30912

Davis, Harry N., Cherokee-Pickens—ACT—FP
110 Waleska Rd., Canton 30114

Dozier, Fred A., Cobb—N-2—GS
1001 Atlanta West Blvd., Ste. 414, Lithia Springs 30057

Draffin, Richard M., Ga. Med. Soc.—N-1—PTH
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Duarte, Ramon R., Richmond—ACT—NEP
Medical College of Georgia, Nephrology, Augusta 30912

Falls, Dorth G., Richmond—I&R—PTH
Medical College of Georgia, Pathology, Augusta 30912

Farr, William L., Richmond—ACT—IM
1138 Druid Park Ave., Augusta 30904

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Gershon, Charles R., MAA—N-2—U
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Getman, Thomas A., Dougherty—N-2—EM
Palmyra Park Hospital, Albany 31701

Guill, Margaret F., Richmond—N-2—AL
Medical College of Georgia, Pediatrics, Augusta 30912

Harmon, John D., Richmond—N-2—GS/OTO
Medical College of Georgia, CJ 357, Augusta 30912

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1280 Merry St., Augusta 30904

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Petway, James M., Richmond—I&R—IM
VA Medical Center, Downtown Division, Augusta 30902

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Saeed, Khalid, Elbert—ACT—IM/GP
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VA Medical Center, Augusta 30910

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Wolfson, Michael R., MAA—ACT—OBG
5669 Peachtree-Dunwoody Rd., NE, Ste. 205, Atlanta 30342

Yang, Linda C., Ga. Med. Soc.—N-2—FP
3 Medical Arts Center, Savannah 31405

PERSONALS

First District

Irving Victor, M.D., of Savannah, was elected chief of staff of the Memorial Medical Center in Savannah.

Second District

Thomas A. Getman, M.D., chief of emergency services at Palmyra Park Hospital in Albany, is the first physician in his area to complete the requirements for certification by the Emergency Medicine Board.

Fourth District

Victor R. Gonzalez, M.D., of Atlanta, has joined the medical staff of Brawner Psychiatric Institute as Director of the Adolescent Treatment Program.

On February 25, Berry College in Rome, Georgia, hosted a symposium on medicine and ethics. **O. Wytch Stubbs, M.D.,** of Decatur, was one of the guest speakers. The topic of the first meeting in this series was working with the family of the terminally ill patient.

Diane C. Leeb, M.D., and **B. Alfred Pihl, M.D.,** both from Tucker, were recently named Fellows in the American College of Surgeons.

Fifth District

Amir H. Ansari, M.D., Atlanta, served as a session chairman in a world conference on "In Vitro Fertilization and Instrumental Insemination" in Kiel, West Germany. At this conference Dr. Ansari also presented two papers, "Egg Recovery and Fertilization in Humans and Primates" and "Alteration of Cervical Mucus Properties to Enhance Fertility."

On February 11, Georgia Civitans presented a $63,000 machine to Emory for use in detecting metabolic disorders in newborns. The Civitans have entitled the new equipment "the Dr. Elsas machine" in recognition of the leadership of **Louis J. Elsas, II, M.D.,** in medical genetics.

John T. Godwin, M.D., currently living in Saudi Arabia, participated in the recent International Symposium on *Clinical Decision Making and Laboratory Use,* Riyadh Al-Kharj Hospital Programme — Armed Forces Hospital, Riyadh, Kingdom of Saudi Arabia. While in the U.S. in January and February, Dr. Godwin attended the annual American Cancer Society Fellowship Award Committee meeting in New York City. Dr. Godwin was also appointed chairman of a drive to obtain $1.5 million in endowments for the James Ewing Chair of Pathology — Memorial Hospital Sloan Kettering Institute, New York City.

The Georgia Baptist Medical Center has elected new medical staff officers. They are: **Eugene O. Harrison, M.D.,** president; **Edward M. Mason, M.D.,** president-elect; **Jack E. Dawson, M.D.,** secretary; **Richard E. DuBois, M.D.,** physician representative to the hospital's Executive Committee; and **William D. Logan, Jr., M.D.,** chief of staff. All reside in Atlanta.

Clyde Lord, M.D., of Atlanta, is the newly-installed president of the Atlanta Medical Association.

Wyman P. Sloan, III, M.D., Atlanta, has been named Diplomate of the Board of Internal Medicine.

Henry E. Steadman, M.D., Atlanta, was recently elected to membership in The Royal Society of Medicine at the Society's general meeting.

John P. Wilson, M.D., Atlanta, was a featured speaker at the American Cancer Society's National Kick-Off in St. Louis.

Seventh District

Richard B. Colditz, M.D., of Carrollton, has been named president of the Georgia State Obstetrical-Gynecological Society.

William S. Davis, M.D., Rome, was recently appointed director of psychiatric services at Floyd Medical Center in Rome.

T. E. Reeve, Jr., M.D., of Carrollton, was named president of the Georgia Surgical Society.

Eighth District

William Russell Holland, M.D., an orthopedic surgeon, recently moved his offices from Brunswick to Jesup.

The *Valdosta Daily Times* honored Valdosta's first pediatrician in an article published February 22. **Alton Johnson, M.D.,** now retired, recalled various events which took place in his 48 years of caring for that city's children.

Tenth District

Greensboro family physician, **J. Lee Parker, M.D.,** was named "Citizen of the Year" for Greene County in 1980.

Jose Maria Hiceta Porquez, M.D., of Monore, was recently elected to the staff of Winder-Barrow Hospital and has opened a second office in Winder.

SOCIETIES

The **Baldwin County Medical Society** heard George Ackerman, M.D., at their January meeting. Dr. Ackerman, a Professor of Medicine at the University of Arkansas, spoke on "Hypertension in the Elderly Diabetic Patient."

At a recent joint meeting of the medical staff of the Emanuel County Hospital and the **Emanuel County Medical Society,** H. Wilder Smith, M.D., of Swainsboro, presented a paper on diagnostic procedures in obstetrical practice.

DEATHS

William Martin Cason

William Martin Cason, M.D., of Sandy Springs, died Jan. 23, 1981. Born in Warren County, Dr. Cason was raised in Sandersville and practiced medicine there from

1929 to 1941. He then entered the U.S. Navy as a flight surgeon and served in World Wars I and II and in the Korean War. He retired as captain in 1951. From 1951 until 1963, Dr. Cason was the plant physician at Lockheed-Georgia, Marietta. He retired in 1963.

Survivors include his wife, a daughter, two sons, nine grandchildren, and three great-grandchildren.

James William Watkins, Jr.

J. W. Watkins, Jr., M.D., 56, died Feb. 2, 1981. Dr. Watkins was born in Butts County and graduated from the Medical College of Georgia in 1948. He practiced in Jackson, Griffin, and other metro-area communities. Survivors include his wife and two sons.

Charles E. Demby

Douglas County surgeon, Charles E. Demby, M.D., 43, died Feb. 2, 1981, after a lengthy illness.

Dr. Demby, a life-long resident of Douglas County, received his M.D. degree from the Medical College of Georgia in 1966. He completed his internship and residency in general surgery at the Georgia Baptist Hospital. He was a Fellow of the American College of Surgeons, a Diplomate of the American Board of Surgeons, and a member of the American Medical Association, the Medical Association of Georgia, and the Douglas County Medical Society. Dr. Demby served on the surgical staff of several hospitals including Georgia Baptist, Northside, West Paces Ferry, Cobb General, and Parkway Regional.

He is survived by his wife, a daughter, two stepsons, his mother and father, and a brother. Donations may be made to the Charles Demby, M.D., Memorial Fund, Parkway Regional Hospital.

Edward K. Howard

Columbus physician, Edward K. Howard, M.D., 46, was killed Feb. 13, 1981, in an auto accident on his way to a meeting in Albany sponsored by the American College of Surgeons.

Dr. Howard, a native of Burlington, Vermont, graduated from the University of Vermont College of Medicine, and practiced in Rye, New York, before serving 14 months in Vietnam as chief of surgery at the 93rd Evacuation Hospital. Afterwards, he moved to Columbus and became the chief of surgery at The Medical Center of Central Georgia in 1974.

Dr. Howard was a member of the American Medical Association, the Medical Association of Georgia, the Muscogee County Medical Society, and the American College of Surgeons.

Survivors include four daughters, a son, his father, and two brothers.

Tofey G. Samaha

T. G. Smaha, M.D., 78, died Feb. 15, 1981. A native of Valdosta, Dr. Smaha graduated from the Medical College of Georgia and practiced in Griffin for over 40 years. He was a member of the American Medical Association, the Medical Association of Georgia, and the Spalding County Medical Society. He was also a Fellow of the International College of Surgeons.

Survivors include his wife, a daughter, three grandchildren, five sisters, two brothers, and 43 nieces and nephews.

Physician's Recognition Award Recipients

LISTED BELOW *are those physicians in Georgia who have earned the AMA's Physician's Recognition Award for January, 1981.*

The award was established in 1969 "to recognize, encourage and support physicians who participate regularly in continuing medical education and to emphasize the importance of developing more meaningful continuing medical education opportunities for physicians." A minimum of 150 credit hours of CME must be earned over a three-year period to qualify for the award. The hours may include such activities as conferences, residencies, teaching, writing, private reading, listening to cassettes, home study courses, consultation, and peer review; at least 60 of the hours, however, must be from formal CME programs sponsored or co-sponsored by organizations accredited for these activities.

We congratulate the following physicians who have distinguished themselves and their profession by their commitment to continuing education:

John Lee Anderson, Macon
Amir Houshang Ansari, Atlanta
William Jackson Atha, Rome
Charles Edward Bagley, Alma
Joe Henry Barnes, Atlanta
John Allen Bell, Dublin
Belford C. Blaine, Atlanta
William Owen Brown, Moultrie
Raul Buelvas, Savannah
James R. Burns, Gainesville
James Maxwell Carson, Atlanta
Deen Bandhu Chandora, Augusta
Yu-Chia Chao, Royston
Hoyt Woodrow Crump, Royston
Ernest F. Daniel, Augusta
Charles Anderson Duggan, Macon
Albert Louis Evans, Atlanta
Basil Manly Griffin, Atlanta
Ross F. Grumet, Atlanta
L. Harvey Hamff, Atlanta
Billy S. Hardman, Gainesville
R. James Hooper, Macon
Nicholas F. Khoury, Fort Benning
Donald Mead Kurtz, Columbus
Michael Kalman Levine, Atlanta
Jeffrey B. Lichtman, Atlanta
Michael Alan Lipsitt, Atlanta
Dennis Christopher Lynch, Atlanta
George S. Manning, Fort Benning
Donald C. McLean, Atlanta
Benjamin A. McReynolds, Savannah
James Alan Miller, Savannah
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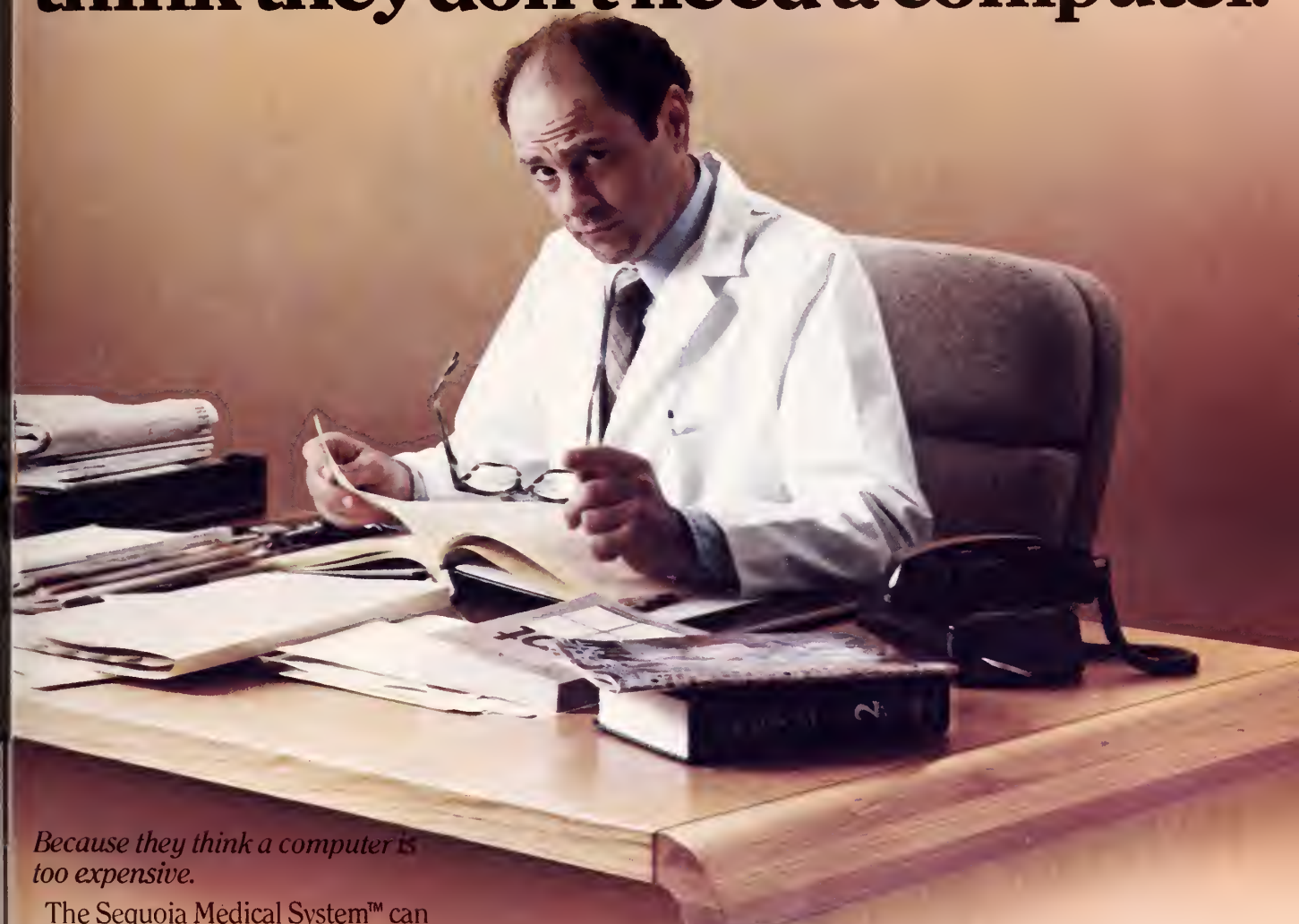
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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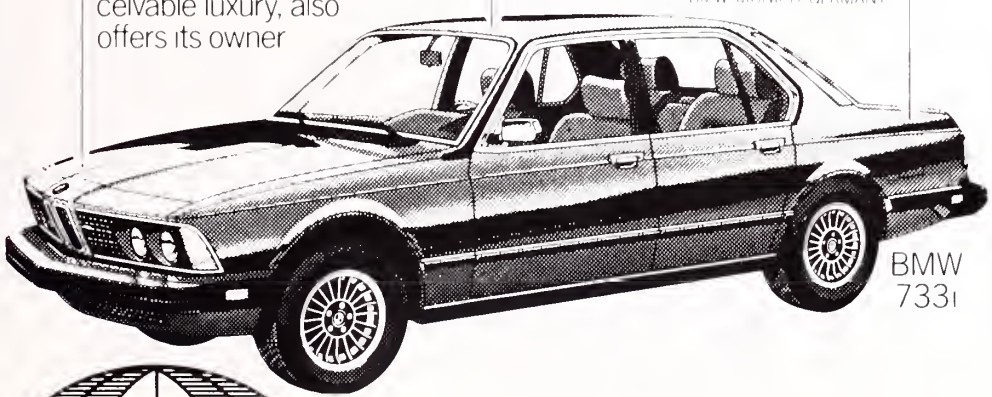
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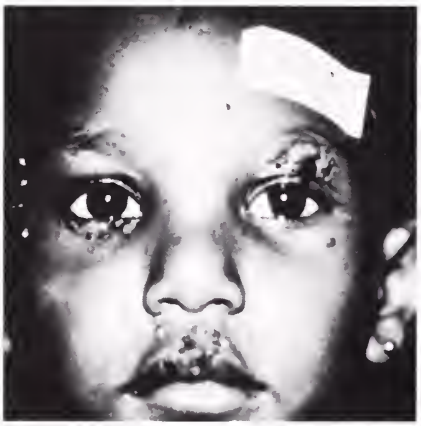
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- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® (cloxacillin sodium)	Given penicillin V-K
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup These were all called by telephone, and their families reported the lesions had healed One patient was dropped from the study, early, because of adverse reaction to medication

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus*, 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes*, and 1% beta-hemolytic *Streptococcus*.†
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

†The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth These 14 were all healed, whether given Tegopen or penicillin V-K

TEGOPEN®
(cloxacillin sodium)
-effective therapy for staph infections of the skin and skin structures

WARNING:
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids

Safety for use in pregnancy has not been established.

PRECAUTIONS:
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy

ADVERSE REACTIONS:
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy

USUAL DOSAGE:
Adults: 250 mg q.6h.

Children: 50 mg./Kg /day in equally divided doses q 6h. Children weighing more than 20 Kg should be given the adult dose. Administer on empty stomach for maximum absorption.

N B : INFECTIONS CAUSED BY GRDUP A BETA-HEMOLYTIC STREPTDCDCCI SHDULD BE TREATED FDR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER DR ACUTE GLOMERULONEPHRITIS

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antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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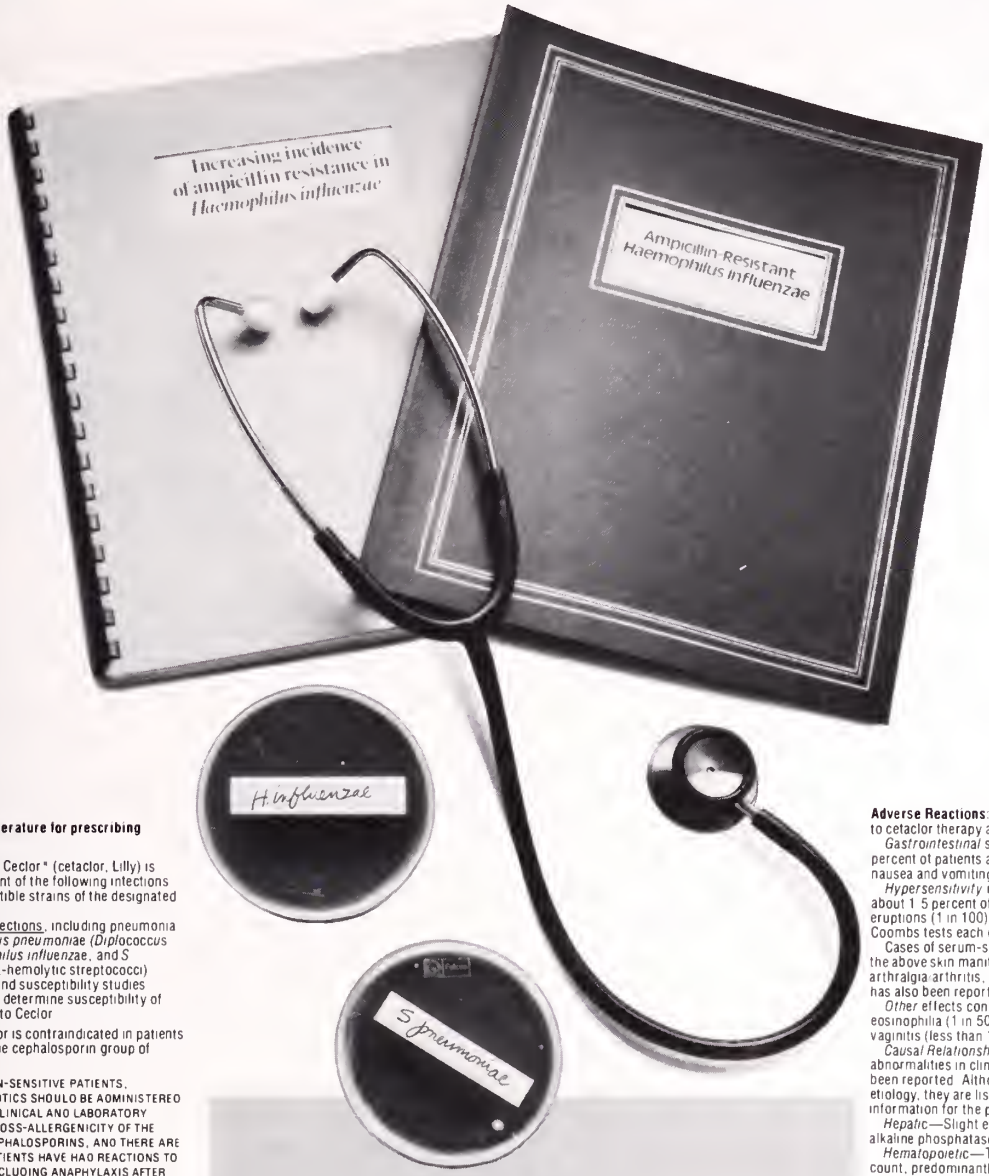
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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential It superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia-arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103060R]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae*.[8]

Note. Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

References

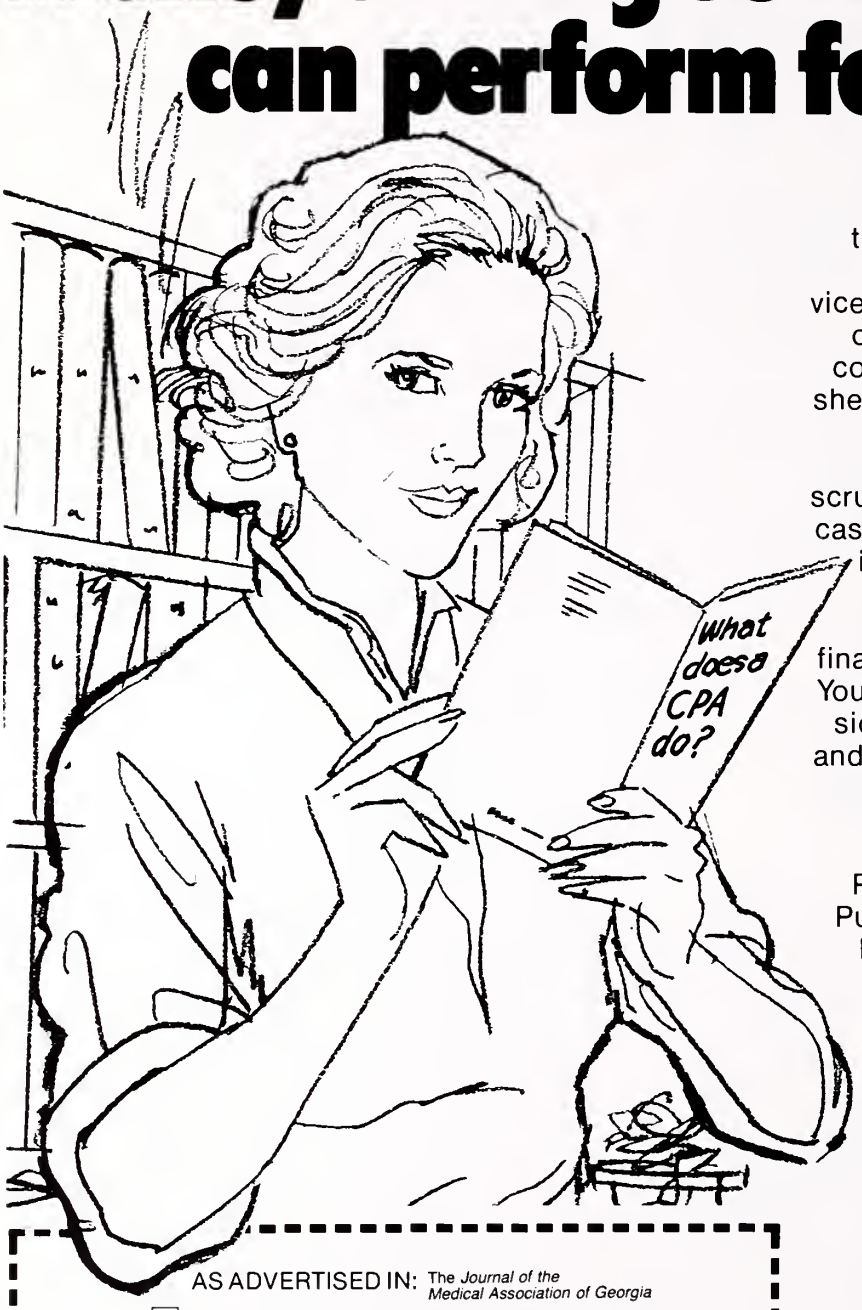
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7 Data on file, Eli Lilly and Company
8 Principles and Practice of Infectious Diseases (edited by G L Mandell, R G Douglas, Jr , and J E Bennett), p 487 New York John Wiley & Sons, 1979

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

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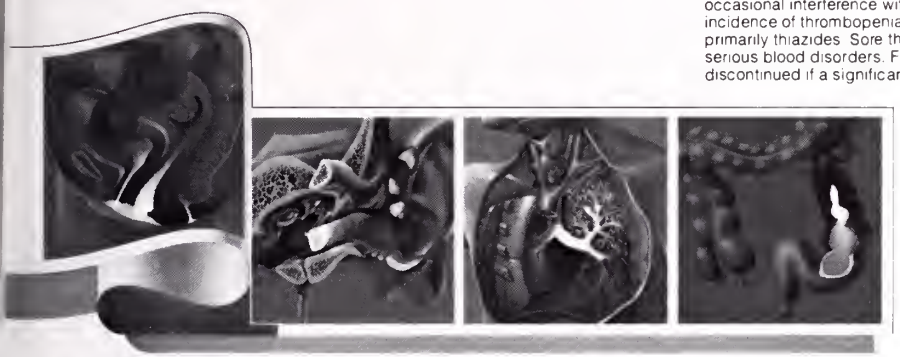
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in shigellosis...
faster relief of diarrhea than with ampicillin[2]

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Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

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For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended, therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

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Children. Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

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Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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1. Rubin RH, Swartz MN: *N Engl J Med 303* 426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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Please see previous page for summary of product information.

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CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly D. pneumoniae)
Otitis media caused by S. pneumoniae (formerly D. pneumoniae) and H. influenzae
Acute exacerbation of chronic bronchitis caused by H. influenzae*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to H. influenzae.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by E. coli and P. mirabilis. (This drug should not be used in any E. coli and P. mirabilis infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Phoryngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

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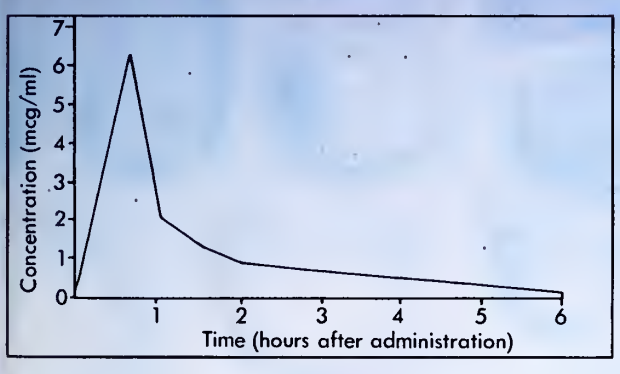
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Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
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Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

High Cure Rates with CYCLAPEN®-W (cyclacillin)		
Causative Organism	Bronchitis/Pneumonia†	No. of Patients
S. pneumoniae	100% 95%	73
Chronic Bronchitis† (acute exacerbation)		
H. influenzae	92% Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.	12
Streptococcal Sore Throat†		
Group A beta-hemolytic Streptococcus	100% 86%	44
% Clinical Response % Bacterial Eradication		

†Due to susceptible organisms.

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(cyclacillin)

250 and 500 mg Tablets
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more than just spectrum

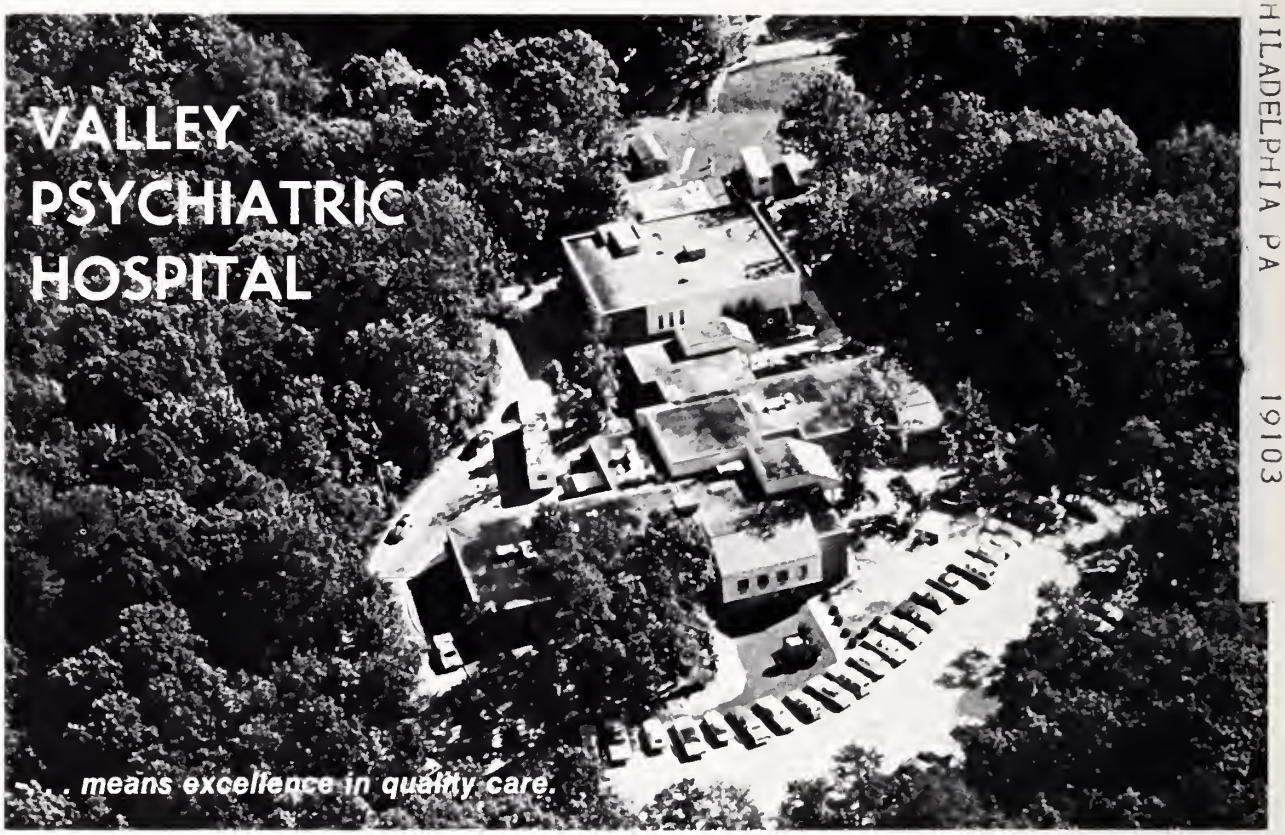
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*Based on single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Valley is a fully accredited private psychiatric hospital staffed by professionals with outstanding credentials in the field of mental health and emotional disorders.

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Valley is a 100-bed private psychiatric hospital nestled in an 81-acre wooded area on the outskirts of Chattanooga, Tenn. Structured clinical programs include:

ADULT PSYCHIATRIC PROGRAM—Admission to the adult program at Valley involves diagnostic procedures such as complete physical examination, psychological testing, psychiatric evaluation and review of social history. Based upon results of these initial tests, the patient's attending psychiatrist together with members of the psychiatric treatment team develop a total treatment plan which may include group therapy in addition to individual therapy, occupational and recreational therapy as well as family involvement.

Weekly meetings of the treatment team are held to modify the original treatment plan based on the patient's progress while in the hospital.

CHILD AND ADOLESCENT PROGRAM—Valley maintains a child and adolescent program for youngsters undergoing specific difficulties in growth and development. This program provides individual as well as group therapy and includes activities in art, sports and field trips of special interest to this age group.

An active school experience is part of this program. Individual lesson plans, administered by special education teachers and worked out with the children's own school district educators, keep them from falling behind peers in their own community school. Because the student is allowed to move at his own pace in an individualized program, he develops confidence and self-discipline.

The Valley program regards adolescence as a psychological growth process—not a disease—so that time, skill and experience are critical ingredients of the treatment.

SUBSTANCE ABUSE PROGRAM—This treatment team is trained and experienced in the treatment of alcoholics and other drug-dependent persons.

A number of approaches are used in the treatment of alcoholism and/or drug abuse: individual and group therapy, substance abuse counseling, lectures, communication skills training, pastoral counseling, physical and recreational therapy, the 12 Steps of Alcoholics Anonymous, Antabuse therapy, and various forms of adjunctive therapy. Whenever possible, family members are urged to become involved in the patient's treatment through out-patient family and individual counseling.

REFERRAL—Valley maintains a 24-hour, seven-day-a-week emergency referral service. Referrals are accepted from psychiatrists and other physicians, the clergy, social workers, mental health professionals, social agencies, self and family.

Valley is fully accredited by the Joint Commission on the Accreditation of Hospitals.

Dr. Robert G. Aug, M.D., Medical Director

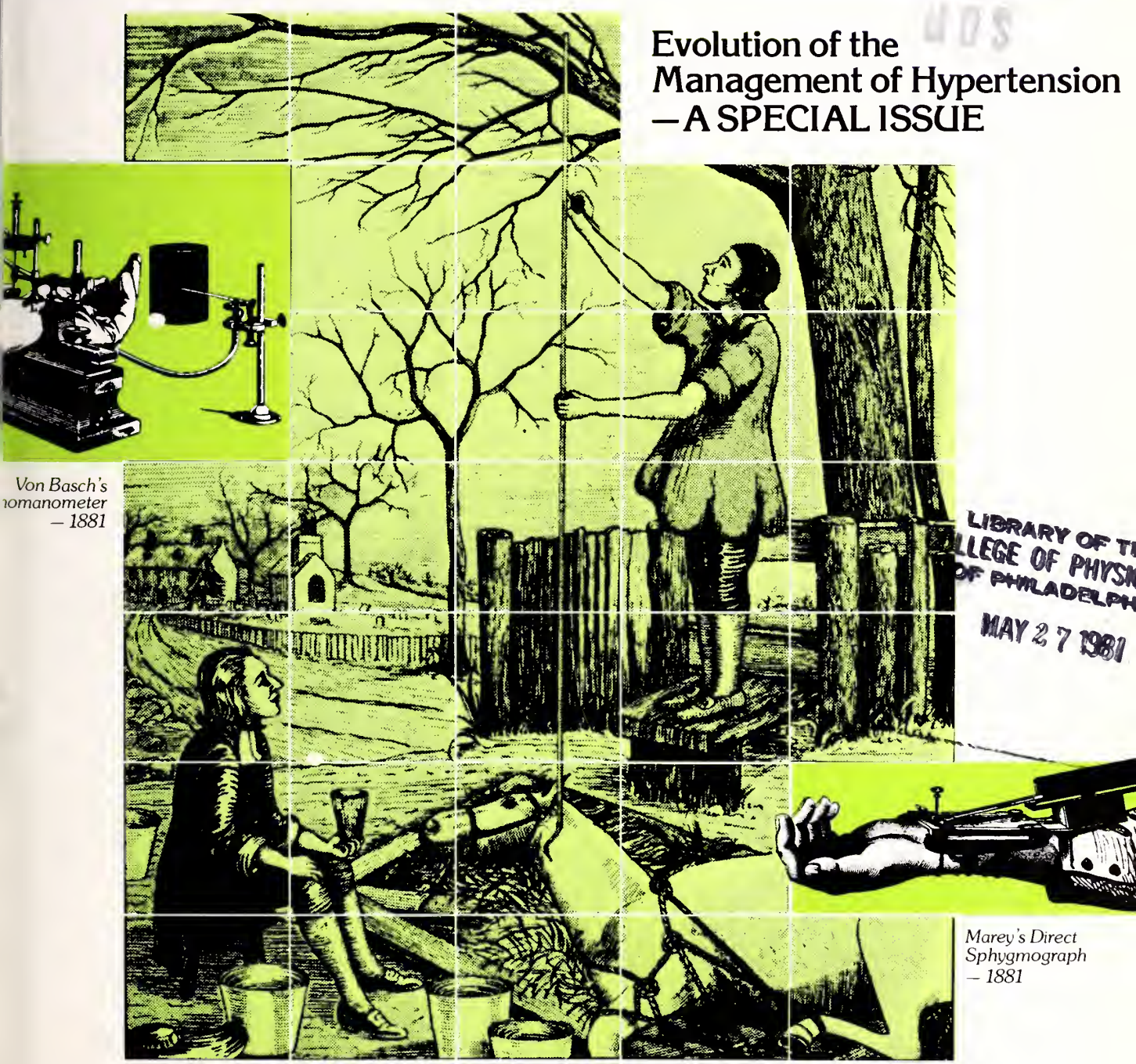
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Evolution of the Management of Hypertension —A SPECIAL ISSUE



Von Basch's ıomanometer — 1881

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September 15, 1980

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COX BROADCASTING 7,5)	5 12/23/74	42	740%
ROLLINS, INC	17 3/27/74	33	94%
JOHN HARLAND 8)	14 4/2/74	40	185%
BURNUP AND SIMS	19 4/15/74	15	(21%)
HOSPITAL CORPORATION OF AMERICA 1)	14 4/28/76	50	256%
AMERICAN MEDICORP 3)	7 4/28/76	23	228%
AMIC CORPORATION 6)	11 12/4/76	26	136%
UNITED GUARANTY 1)	10 12/4/76	29	190%
RMIC CORPORATION 2)	6 12/4/76	25	317%
MGIC	15 2/27/78	31	106%
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LEVITZ	23 5/12/78	29	26%
XTRA 5)	16 10/30/78	20	25%
EASTERN AIR LINES	9 10/30/78	9	0%
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CHURCH'S FRIED CHICKEN	24 2/12/80	26	8%
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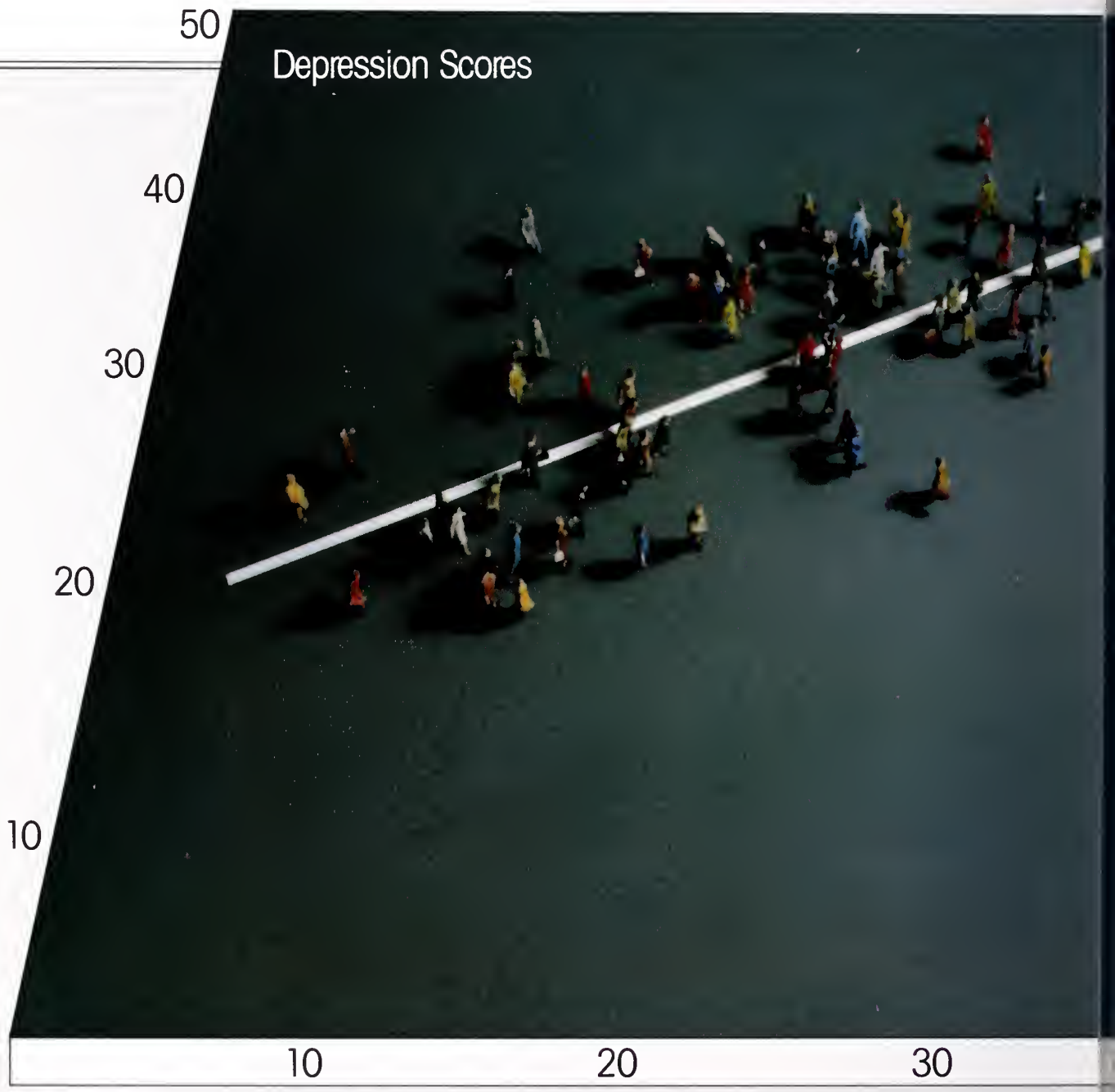
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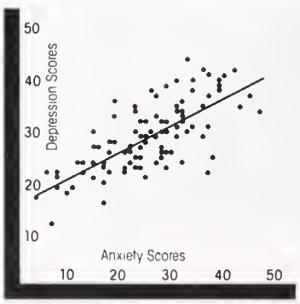
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COVER

This month's cover illustrates the Reverend Stephen Hales' historic experiment in 1732 to determine the blood pressure of a horse. (Reproduced from *Medical Times 1944*.) Etienne Marey's direct sphygmograph, the left photo, invented around 1881, was a masterpiece of ingenuity, but was rather unwieldy and too complicated for routine clinical use. In spite of the complicated appearance of the right photo, however, Samuel von Basch's sphygmomanometer and stand was simpler to use, more accurate, and was therefore of greater clinical value. It too was invented about 1881. (Photos courtesy of Wellcome Trustees.) Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Cloghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35*:1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11*:438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137*:1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61*:217-225, 1979.

Anxiety Scores

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Please see summary of product information on next page.

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Wornings: Use with great care in potients with history of urinory retention or angle-closure glaucoma Severe constipotion may occur in patients taking tricyclic antidepressants ond onticholinergic-type drugs. Closely supervise cordiovasculor patients. (Arrhythmias, sinus tachycordio ond prolongotion of conduction time reported with use of tricyclic ontidepressants, especiolly high doses Myocardial infarction and stroke reported with use of this class of drugs.) Coution potients obout possible combined effects with alcohol ond other CNS depressonts ond against hozordous occupations requiring complete mentol olertness (e g., operating mochinery, driving)
***Usage in Pregnancy:* Use of minor tronquilizers during the first trimester should olmost olways be ovoided becouse of increosed risk of congenitol moiformotions os suggested in several studies. Consider possibility of pregnoncy when instituting theropy; odvise potients to discuss theropy if they intend to or do become pregnont.**
Since physicol ond psychalogical dependence to chlordiazepoxide have been reported rorely, use caution in odministering Limbitrol to oddiction-prone individuals or those who might increase dosoge, withdrawol symptoms following discontinuotion of either component olone have been reported (nauseo, headache and malaise for omitriptyline, symptoms [including convulsions] similor to those of barbiturate withdrowol for chlordiazepoxide)
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In the elderly ond debilitoted, limit to smallest effective dosoge to preclude ataxia, oversedotion, confusion or anticholinergic effects
Adverse Reoctions: Most frequently reported are those ossocioted with either component olane drowsiness, dry mouth, constipotion, blurred vision, dizziness ond bloating Less frequently occurring reoctions include vivid dreams, impotence, tremor, confusion ond nasal congestion Mony depressive symptoms including anorexia, fatigue, weokness, restlessness ond lethorgy have been reported os side effects of both Limbitrol and omitriptyline Granulocytopenia, joundice ond hepotic dysfunction hove been observed rorely
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Neurologic Incoordinotion, otoxio, numbness, tingling and paresthesias of the extremities, extrapyramidal symptams, syncope, chonges in EEG potterns
Anticholinergic Disturbonce of accommodation, paralytic ileus, urinory retention, dilotation of urinary tract
Allergic Skin rosh, urticorio, photosensitization, edema of face ond tongue, pruritus
Hemotologic Bone morrow depression including ogronulocytosis, eosinophilio, purpuro, thrombocytopenia
Gostrointestinol Nouseo, epigostric distress, vomiting, anorexia, stomotitis, peculior toste, diorrhea, black tongue.
Endocrine Testicular swelling ond gynecomostio in the male, breast enlorgement, galactorrhea and minor menstruol irregulorities in the female and elevotion ond lowering of blood sugar levels.
Other Headache, weight goin or loss, increosed perspiration, urinary frequency, mydriosis, jaundice, alopecia, paratid swelling
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Dosage: Individualize occarding to symptom severity ond potient response Reduce to smallest effective dasage when sotisfoctory response is obtained Larger portion of daily dose may be token ot bedtime Single *h s* dose may suffice for same potients Lower dosages are recommended for the elderly Limbitrol 10-25, initial dosoge of three to four toblets daily in divided doses, increosed to six tablets or decreosed to two toblets doily os required Limbitrol 5-12 5, initiol dosage of three to four toblets daily in divided doses, for patients who do not tolerote higher doses
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18-22—*Augusta;* **SECOND ANNUAL CRITICAL CARE MEDICINE SYMPOSIUM;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912.

20-22—*Huntsville, AL;* **SOUTHERN REGIONAL CONFERENCE ON EMERGENCY AND CRITICAL CARE MEDICINE;** Category 1 credit; Contact: Wendell Shannon, MD, 106 Sanders St., Athens, AL 35611. PH:205/232-2505 or Steven Hall, Box 2104, Decatur, AL 35602. PH:205/353-3800.

20-23—*Jekyll Island;* **GEORGIA PUBLIC HEALTH ASSOCIATION MEETING;** Contact: J. D. Smith, Ga. Public Health Assn., P.O. Box 38183, Atlanta 30334. PH:404/656-4764.

21—*San Antonio, TX;* **FIRST ANNUAL PERINATAL SYMPOSIUM ON MOTHER AND NEWBORN AT RISK;** Category 1 credit; Contact: Medical School, Cont. Ed. Services, Univ. of Texas Health Science Ctr., 7703 Floyd Curl Dr., San Antonio, TX 78284.

21-22—*Callaway Gardens;* **NINTH ANNUAL PERINATAL MEDICINE CONFERENCE;** Category 1 credit; Contact: Div. of Perinatology, The Medical Center, P.O. Box 951, Columbus 31994. PH:404/324-4711.

28-30—*Lexington, KY;* **GENERAL PEDIATRIC REVIEW;** Category 1 credit; Contact: Frank R. Lemon, M.D., Cont. Ed., College of Medicine, Univ. of KY, Lexington, KY 40536.

29-31—*Lake Buena Vista, FL;* **MASTER APPROACH TO CARDIOVASCULAR PROBLEMS;** Contact: Div. of CME, Univ. of Miami Sch. of Med., Box 016960, Miami, FL 33101.

JUNE

4-6—*Lake Lanier Island;* **OBSTETRICS AND GYNECOLOGY UPDATE;** Category 1 credit; Contact: A. H. Ansari, M.D., 340 Boulevard, NE, Atlanta 30312. PH:404/659-5211.

7-10—*Atlanta;* **NATIONAL MEETING FOR THE INSTITUTE OF FOOD TECHNOLOGISTS;** Contact: Daniel Weber, Institute of Food Technologists; 221 N. LaSalle St., Chicago, IL 60601. PH:312/782-8424.

11-13—*Jekyll Island;* **RECENT ADVANCES IN INTERNAL MEDICINE;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

14-17—*Clearwater, FL;* **6TH ANNUAL SUNCOAST PEDIATRIC CONFERENCE;** Contact: Frank J. Cozzetto, M.D., All Children's Hospital, Development Dept., 801 6th St., South, St. Petersburg, FL 33701.

22-26—*Palm Beach, FL;* **13TH FAMILY PRACTICE REVIEW;** Contact: Bill Rockwood, Box J-223, J. Hillis Miller Health Ctr., Gainesville, FL 32610.

25-27—*Hilton Head Island, SC;* **CLINICAL CARDIOLOGY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

29-July 1—*Kiawah Island, SC;* **HIGH RISK OBSTETRICS;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

JULY

13-17—*Atlanta;* **TAXES AND INVESTMENTS;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

16-18—*Kiawah Island, SC;* **RECENT ADVANCES IN INTERNAL MEDICINE;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

19-24—*Asheville, NC;* **SOUTHERN OB/GYN SEMINAR;** Contact: Dr. George Schneider, Southern Ob/Gyn Seminar, Inc., Ochsner Clinic, 1514 Jefferson Hwy., New Orleans, LA 70121. PH:504/834-7070.

21-25—*Hilton Head Island, SC;* **FOURTH ANNUAL SYMPOSIUM ON CONTEMPORARY CLINICAL NEUROLOGY;** Contact: Mrs. Joan Sullivan, Dept. of Neurology, Vanderbilt Univ. Sch. of Med., Nashville, TN 37232.

27-29—*Kiawah Island, SC;* **PEDIATRICS;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

WE WANT TO SERVE YOU BETTER!

Although we receive many notices for excellent continuing education meetings, all too often the information is received too late for timely inclusion in our Medical Meeting Calendar. In order for *your* meeting to be included, please send us the necessary information *two months* in advance of the issue in which you want it to appear. For example: for the August issue, copy is due by June 20; for the September issue, copy is due by July 20, etc. Mail to: Stephen Davis, Director of Education, MAG, 938 Peachtree St., NE, Atlanta, GA 30309.

Incidental Intelligence . . .

High Energy Medical Betatron Available for Cancer Therapy in Metro Atlanta

Parkway Regional Hospital in Lithia Springs operates the only 45 MeV betatron for cancer therapy in the Southeast. This treatment unit has the highest energy of any electron accelerator now in use for radiation therapy.

In addition to producing x-ray beams, the Brown Boveri Betatron can be used to generate electron beams with energies from 3 to 45 MeV. The electron beam has distinct advantages in the treatment of tumors located at limited depth. By selecting the proper energy, one can dose a block of tissue extending from the skin to a fixed depth with essentially zero dose to healthy tissue located deeper than the tumor. The main features of the electron beam are a rapid dose build-up near the surface, a depth of the high-dose region dependent on the energy of the electron beam, and a steep dose fall-off beyond the 80% dose level.

Some clinical situations in which the electron beam is used are the following: (1) skin and lip cancer, (2) chest wall treatment after mastectomy, (3) treatment of spinal accessory chain of nodes, (4) unilateral neck treatment after radical neck dissection, (5) treatment of tumors of the parotid and submaxillary salivary glands and (6) treatment of carcinomas of the upper air and digestive passages.

(Reported by Thomas Jones, M.D., Director, Radiation Therapy, and Patton H. McGinley, Ph.D., Medical Physicist, Parkway Regional Hospital.)

Auxiliary to the MAG Raises Money for Various Educational and Research Loans

Contributing to the education of students in medical training and allied health careers has been one of the major activities undertaken by members of the Auxiliary to the Medical Association of Georgia during the 1980-81 year.

A total of $27,872.72 has been raised, to be distributed through the American Medical Association's Education and Research Fund (AMA-ERF), the William R. Dancy, M.D., Student Loan Fund, and by individual allied health career loans and scholarships awarded by county auxiliaries. Of this amount, $15,524.26 has gone to the AMA-ERF, $2,840.46 to the Dancy Fund, and $9,508.00 to individual loans and scholarships.

Last year, at the national level, the AMA Auxiliary presented a check for 1.6 million dollars to the AMA-ERF at the annual AMA meeting in Chicago, for an overall total of 32 million dollars given to date to AMA-ERF. From these funds, Georgia medical schools have received in benefits this year: $8,370.18 to the Medical College of Georgia; $8,969.95 to the Emory University School of Medicine; and $1,075.74 to the Medical School of Morehouse College.

Georgia county auxiliaries participating in the AMA-ERF program included: Bartow, Bibb, Clayton-Fayette, Cobb, Crawford Long, DeKalb, Dougherty, Floyd-Polk-Chattooga, Georgia Medical, Glynn, Hall, Medical Association of Atlanta, Muscogee, Peach Belt, Randolph-Stewart-Terrell, Richmond, Thomas Area, Tift, Walker-Catoosa-Dade, and Ware.

Mrs. Arlie R. Mansberger, Jr., of Augusta, is State AMA-ERF Chairman for Georgia. Serving on the Dancy Loan Fund Committee are: Mrs. Arlie R. Mansberger, Jr., Mrs. William N. Agostas, Mrs. Mark Brown, and Dr. James B. Puryear, of Augusta; and Dr. Dorothy Brinsfield, of Atlanta.

[*Reported by Evelyn Gay (Mrs. Brit B., Jr.), A-MAG Historian and Editor of* Pulse Line.]

The Health Consequences of Smoking — The Changing Cigarette

On Jan. 12, 1981, the Surgeon General's annual report on the health consequences of smoking was released. It reviewed current scientific data to examine the relative health hazards resulting from use of cigarettes with different levels of "tar" (a majority of the particulate matter in cigarettes), nicotine, carbon monoxide, and additives.

There have been marked changes in the type of cigarettes smoked since the early 1950s, when the health effects of smoking were first widely recognized. One change is that the average yield of tar in a cigarette consumed in the United States has declined from 38 mg in 1954 to 19 mg in 1975. The nicotine yield has also declined: from 2.3 mg to 1.3 mg per cigarette. Cigarettes yielding less than 15 mg tar accounted for 2% of cigarette sales in 1967; the comparable figure for 1980 is expected to approach 50%.[1]

The percentage of smokers who buy filtered cigarettes has also progressively increased (Figure 1). The effects of these changes are summarized below.

1. Lower tar and nicotine cigarettes are associated with fewer lung cancers than their higher tar predecessors, but the lung cancer rates for smokers of such cigarettes are still much higher than those for nonsmokers.

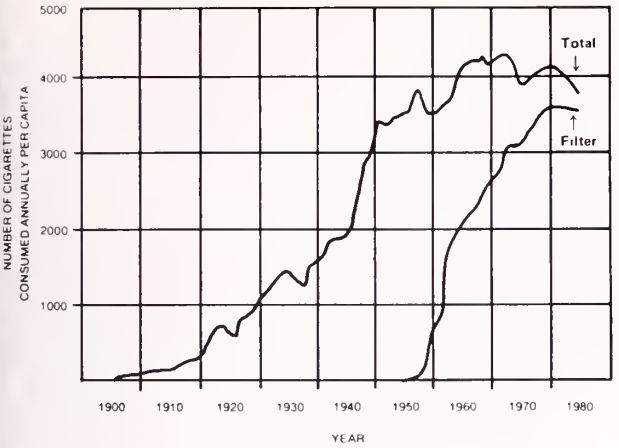


FIGURE 1 — Annual per capita consumption of total cigarettes and filter-tipped cigarettes in the United States, for persons aged 18 and older, 1900-1979.

2. The occurrence of cancer of the larynx may also be lower among smokers of lower-yield products than among smokers of higher tar and nicotine products.

3. There are no data on the relative risk of other cancers associated with the use of lower-yield cigarettes.

4. There is insufficient evidence that lower tar or nicotine cigarettes reduce the excess risk of cardiovascular disease in smokers — the largest cause of excess mortality related to cigarette smoking.

5. There is insufficient evidence available to assess the impact of lower-yield cigarettes on the risk of chronic obstructive lung disease, including emphysema.

6. No evidence has been published on the effect of varying cigarette yields upon the pregnant woman or the fetus.

7. When persons switch to lower-yield cigarettes, they sometimes change their smoking habits as well (perhaps to compensate for lower yield). However, this behavior has not been clearly defined, and its impact on the health risks of smoking is not fully known.

8. It has not been proven that lower-yield cigarettes encourage starting or continuing smoking, or that they ease the process of stopping.

9. Carbon monoxide has been identified as a harmful constituent of cigarette smoke. However, the data are insufficient to determine variations in the excess risks of diseases that might result from variations in carbon monoxide levels.

10. Special concern is being raised about the potential for new or increased health hazards of cigarette smoking due to the use of additives in cigarettes. The identity and quantity of such additives in cigarettes are not presently known, nor are the nature or the biologic effects of their pyrolytic products.

Reported by the Office on Smoking and Health, U.S. Public Health Service, Dept of Health and Human Services. Reprinted from the Feb. 6, 1981, issue of the Morbidity and Mortality Weekly Report.

Editorial Note. A dose-response relationship between cigarette smoking and a number of diseases — including cancer, cardiovascular disease, and non-neoplastic bronchopulmonary disease — has been clearly established.[2] Some of the elements that have been determined to contribute to this complex relationship are the number of cigarettes smoked, the age of initiation of smoking, the number of years of smoking, the depth of inhalation, and the type of cigarette smoked.

The Public Health Service policy regarding cigarette smoking remains unchanged. There is no safe cigarette; the only way to avoid the hazards of smoking is to stop entirely. However, until the cigarette smoker actually stops smoking, some lessening of the risk of lung cancer may be obtained by the use of lower tar and nicotine, rather than higher-yield, cigarettes.

References

1. U.S. Department of Agriculture. Tobacco situation. U.S. Department of Agriculture, Economic, Statistics and Cooperative Service, Sept 1980.

2. CDC. Highlights of the Surgeon General's report on smoking and health. MMWR 1979;28:1-4, 9-12.

(A copy of the report from which these data were derived is available on request from the Office on Smoking and Health, U.S. Public Health Service, 5600 Fishers Lane, Park Building, Room 1-58, Rockville, Maryland 20857.)

Letters to the Editor . . .

The Future of PSROs? — A Reader Responds

Dear Sir:

I respond to the *Editorial Note* on page 163 of the March, 1981, issue of the *JMAG*.

First of all, it is of enormous importance in assessing the cost-effectiveness of the PSRO program to know which year is being studied — PSROs are still, in some cases, just beginning implementation (Georgia's among them), and start-up costs of a program obviously can result in no cost saving whatever. It is unfair, therefore, to consider the costs of the PSRO program overall, but rather only the cost vs. savings of fully operational programs should be evaluated.

Second, I believe it is totally unrealistic of the AMA or of any individual physician to believe that elimination of PSROs by an Administration which declares itself dedicated to the reduction of Medicare and Medicaid expenditures would be followed by an absence of review — rather I think it more likely that review authority would, absent PSROs, be vested either in the fiscal intermediaries or in the federal bureaucracy. Given those choices, how many physicians, I wonder, would prefer review by an insurance clerk or a civil servant to review by an organization of fellow physicians?

Finally, all cost savings considerations aside, one of the mandates of the PSRO is to monitor and effect improvements in the QUALITY of care rendered federal program beneficiaries. Who is better qualified than an organization of physicians to conduct such a program?

Yours respectfully,
M. A. Glucksman, M.D., President
Georgia Medical Care Foundation/PSRO

Dear Sir:

Further to my letter of March 17, 1981, I invite attention to the following article from the March 13, 1981, issue of *American Medical News*, an AMA publication:

PSROs found to save money in New York

Professional standards review organizations saved New Yorkers $34 million in one year, according to a claim of the New York Statewide PSRO Council.

The council, an organization of the state's 16 PSROs, said the savings was more than the cost of running the review programs.

PSRO monitoring of Medicare hospital admissions for one year resulted in a savings of $27.9 million, said council Chairman Howard B. Goldstein, M.D. The net savings, after applying expenses and other factors, was $22.9 million.

Savings on Medicaid hospital admissions netted $11.6 million, Dr. Goldstein added.

"If the federal government at this time cannot afford to fund the entire national PSRO program, it should at least continue to support PSRO programs of demonstrated cost effectiveness, like New York's," he said. "The government should learn from them how to establish a truly effective national program to assure efficient use of the taxpayer's health dollar."

Dr. Goldstein pointed out that 21,911 of the state's 45,147 physicians in private practice were members of their local PSROs.

"Physicians are in PSRO not because they like reviewing the performance of their colleagues, and of hospitals and nursing homes, but because they have a common dread of the government assigning lay bureaucrats to review the work of physicians who have had anywhere from 7 to 20 years of medical training.

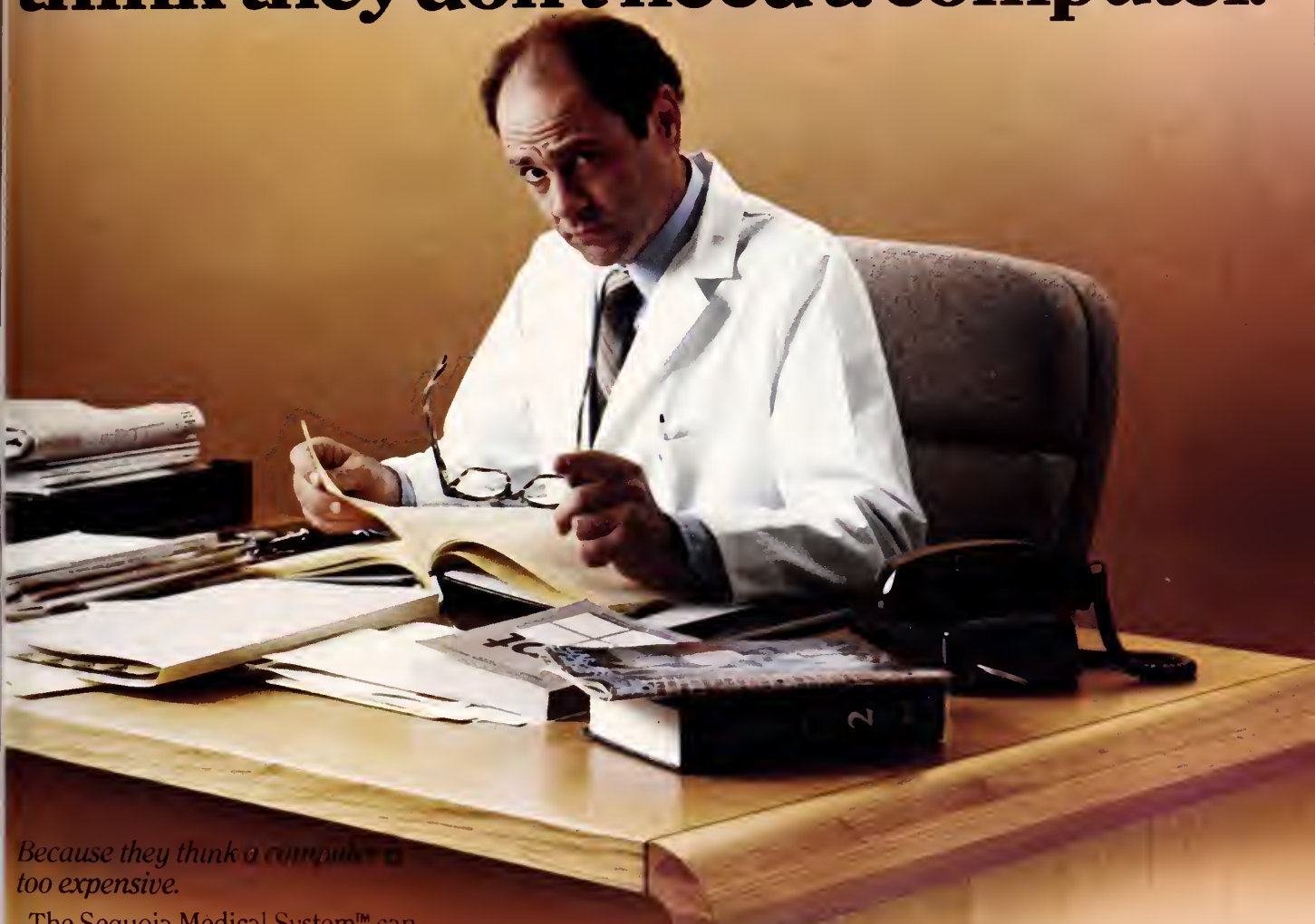
"If the new administration abolishes PSRO, or abolishes its effectiveness by short-sighted budget cutting, I promise you the administration will have to re-invent the PSRO a very short time after," Dr. Goldstein said.

You will note that the New York PSRO Council claims a ratio of savings to costs on the order of about 6 to 1. All 16 New York PSROs have been fully operational for several years. One might realistically expect savings ratios to be even better in Georgia, inasmuch as at least some of the New York PSROs are very small and therefore have relatively high overhead ratios.

I particularly invite your attention to the two final paragraphs of the article — I think that they are as equally applicable to Georgia as to New York.

Yours respectfully,
M. A. Glucksman, M.D.

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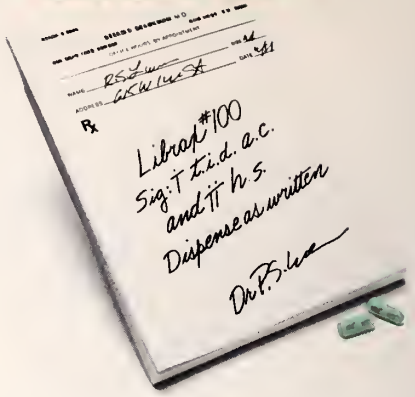
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"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

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As with all anticholinergics, inhibition of lactation may occur.

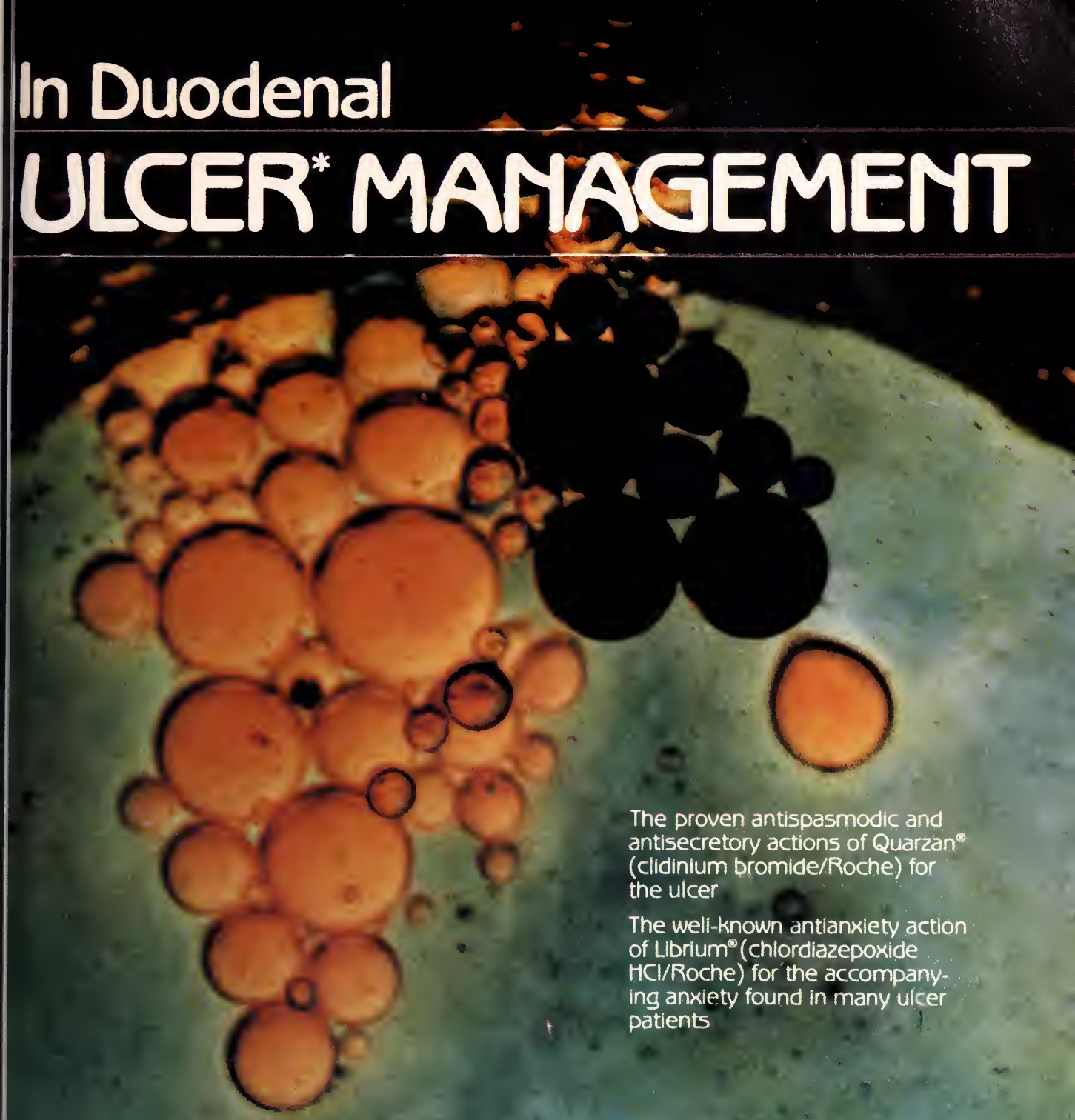
Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents; particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema; minor menstrual irregularities; nausea and constipation; extrapyramidal symptoms; increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis); jaundice; hepatic dysfunction reported occasionally with chlordiazepoxide HCl; making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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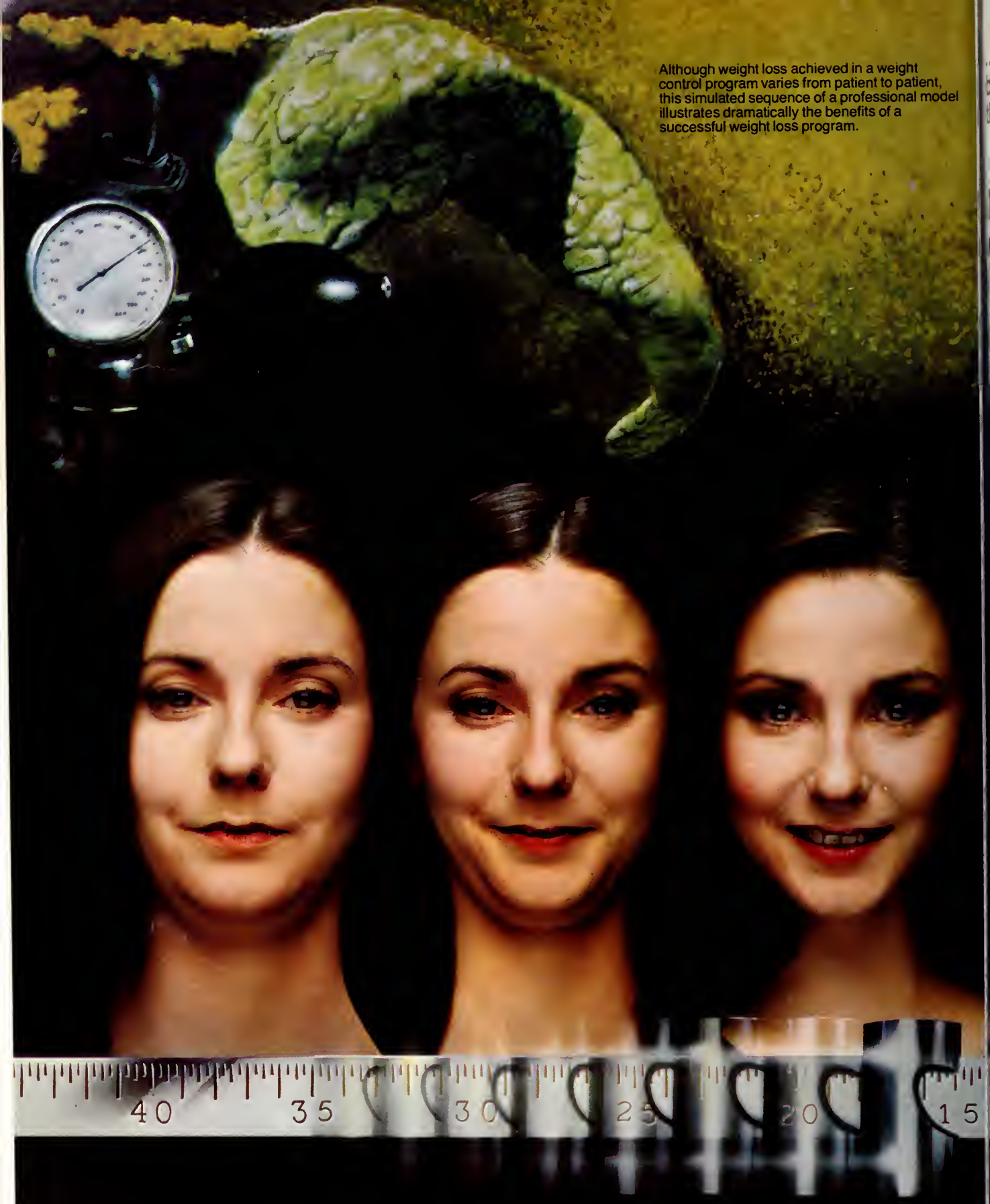
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Photograph of simulated gastric hypersecretion.



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In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

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The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation." [2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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Tenuate Dospan® ⓒIV
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AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: It tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence*: Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema. *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York. Raven Press, 1978, pp. 391-404.

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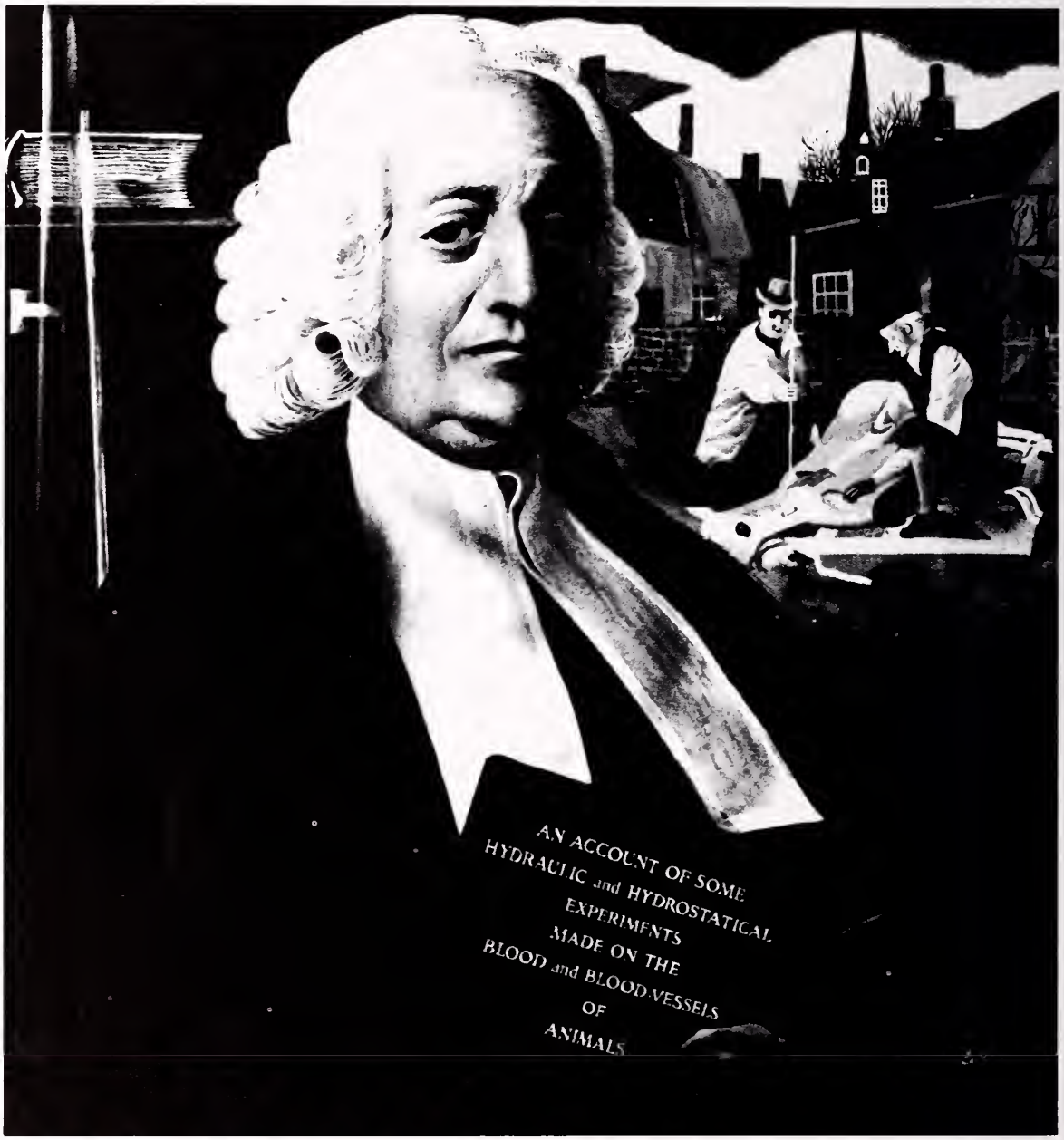
editorial
editorial
editorial

High Blood Pressure in Georgia

WHY IS THIS ISSUE of the *Journal* devoted to high blood pressure? There are other major diseases that cause as much or more suffering and economic loss: cancer, stroke, heart attack, arthritis, mental illness, to name just a few. Why all this publicity and hoopla about a common and predominately asymptomatic health problem?

The key word in the answer to these questions is **PREVENTION.** Unlike most of the other major chronic diseases, we can prevent the morbidity and mortality caused by hypertension. The treatment of high blood pressure is the greatest advance in preventive medicine since the discovery of polio and measles immunization. High blood pressure, however, involves unique and difficult preventive measures requiring a long-term approach. It has been shown that if this type of preventive medicine is to reach the 15 to 25% of the adult population who need it, it requires a community approach. The one-on-one physician-patient relationship is vital, but it is not enough. The community must be saturated with educational messages. There needs to be continuous screening, targeted to hard-to-reach groups in order to detect new cases each year as well as to detect those who have mistakenly discontinued treatment and those whose treatment is not adequately controlling their blood pressure. Such screening involves easy access to blood pressure measurements in non-traditional sites (e.g., at work), low cost or prepaid prescription drugs, constant reinforcement of the need for continuous observation by the family, employer, and community, as well as by health professionals. We can be cautiously optimistic, as recent studies indicate that 75% of the hypertensives in a community will cooperate with this approach and remain in treatment programs for many years.

Joseph A. Wilber, M.D.
Medical Consultant
Georgia Department of Human Resources
Atlanta



In addition to his responsibilities as a trustee in the "corporation" of Georgia originally founded by the English Crown, the Reverend STEPHEN HALES, a country parson, was keenly interested in science. To him is attributed the credit for the discovery of blood pressure in an historical experiment in December of 1732.

The Founding of Georgia and the Discovery of Blood Pressure

Joseph A. Wilber, M.D.*

GEORGIA, unlike the other 12 colonies established by the English Crown, was a corporation governed by trustees rather than a royal province owned and governed by lord proprietors. The trustees, originally appointed by the Crown and later elected by the corporation, were public spirited and patriotic men of average means. They donated their time and efforts and could not own land in the new colony or receive any compensation for their services. They petitioned King George II to form this new colony to provide land and occupations for the poor and debt ridden of England and to establish a bulwark to defend the older northern colonies from the aggression of the Indians and the Spanish.

Among the original 17 trustees appointed or elected in 1732 were James Oglethorpe, a country landowner and former Army officer, and the Reverend Stephen Hales, a country parson with an inquiring mind. Of the 48 men who were appointed as trustees of the corporation, records indicate that seven men did the majority of the work. They wrote most of the reports and attended the most meetings and Oglethorpe and Hales were among them. In fact, they unselfishly devoted much of their time to this venture for the next 20 years (1732 to 1752).[1]

Besides his parish and Georgia, however, Hales had another interest for which he would become a historical figure. That interest was science. Hales is best known for his discovery of blood pressure. "It is surprising that the common occurrence of blood spurting from torn vessels did not arouse the curiosity of physiologists long before the eighteenth century. Yet it took the inquiring mind of Hales to investigate this phenomenon and to him can be attributed the discovery of blood pressure."[2]

In 1733, while working on his new project, the establishment of the Georgia colony, Hales published a volume entitled, "Haemostaticks," in which he described his historical experiment as follows. "In December (1732), I caused a mare to be tied down alive on her back; she was fourteen hands high, and about fourteen years of age; had a fistula of her withers, was neither very lean nor very lusty; having laid open the left crural artery about three inches from her belly, I inserted into it a brass pipe whose bore was one sixth of an inch in diameter. . . . I fixed a glass tube of nearly the same diameter which was nine feet in length: then untying the ligature of the artery, the blood rose in the tube 8 feet 3 inches perpendicular above the level of the left ventricle of the heart; . . . when it was at its full height it would rise and fall at and after each pulse 2, 3, or 4 inches. . . ."

Hales later studied many other features of the heart and circulation, and his efforts did not go unrecognized. He was made a Fellow of the Royal Society and won many scientific honors at home and abroad. It was not until Poiseuille introduced the mercury monometer in 1828 that an accurate way to measure blood pressure was found. In 1876, Reva Rocci invented the sphygmomanometer apparatus, and in 1906, Korotkoff discovered the sounds that every physician is familiar with today.

Thus, the founding of Georgia and the first measurement of the blood pressure both occurred in 1732 and were the results of the efforts and genius of the same man — Stephen Hales.

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Data are presented from the Georgia Stroke and Heart Attack Prevention Program (SHAPP) which give a profile of the population affected by as well as the prevalence of hypertension in the state.

The Epidemiology of Hypertension in Georgia

CARROLL B. QUINLAN, M.D., M.P.H., *Atlanta**

In 1972, the Savannah Community Cardiovascular Council, supported by the Center for Disease Control in Atlanta, conducted the first large-scale community program aimed at reducing the incidence of strokes and heart attacks in the Chatham County area. In May, 1972, more than 25,000 persons were screened for cardiovascular risk factors such as high blood pressure, cigarette smoking, diabetes, high cholesterol, etc. Those found to be at high risk were retested and referred for medical evaluation and treatment.

In 1975, the Savannah program was expanded by the Georgia Department of Human Resources to include many other communities throughout the state under the title of the Georgia Stroke and Heart Attack Prevention Program (SHAPP). Between 1975 and 1977, more than a quarter of a million Georgians participated. An analysis of the data derived from this study provides the most up-to-date information on the epidemiology of hypertension in Georgia.

Table 1 shows the prevalence of hypertension by age, race, sex, and education. For the purpose of this analysis, a hypertensive patient is defined as: 1) one who was found at the screening to have a diastolic pressure equal to or greater than 95 mm Hg (undetected, untreated, or uncontrolled hypertension); or 2) one found to have a diastolic blood pressure less than 95 mm Hg and who was taking antihypertensive medication (controlled hypertension).

The following salient points are evident from the data:

TABLE 1 — Prevalence of Hypertension by Age, Race, Sex, and Education

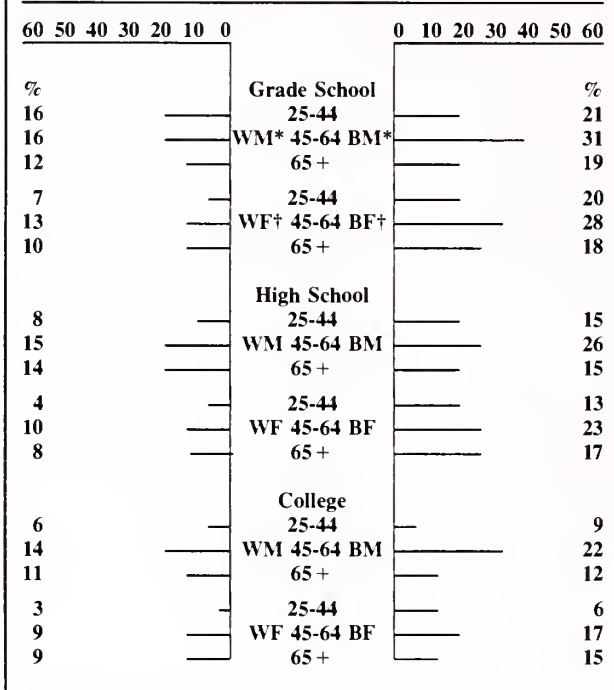
Percent	Education Age Race Sex	Percent
60 50 40 30 20 10 0		0 10 20 30 40 50 60
%	Grade School	%
20	25-44	26
31	WM* 45-64 BM*	43
34	65+	44
9	25-44	29
32	WF† 45-64 BF†	51
42	65+	54
	High School	
12	25-44	17
28	WM 45-64 BM	36
34	65+	32
6	25-44	19
25	WF 45-64 BF	42
37	65+	50
	College	
8	25-44	11
26	WM 45-64 BM	36
31	65+	35
5	25-44	10
24	WF 45-64 BF	38
33	65+	42

* White male; black male
† White female; black female

(1) Age — There is a marked increase in the prevalence of hypertension with increasing age. This is particularly marked between the young and middle aged and less pronounced between the middle and older aged.

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TABLE 2 — Percent in Need of Detection, Treatment and/or Control Services by Age, Race, Sex, and Education



* White male; black male
† White female; black female

(2) Race — Blacks in all instances have a higher prevalence of hypertension than whites.

(3) Sex — Among the blacks, women tend to have a higher prevalence than men; among whites, the prevalence in young men exceeds that in young women, while the reverse is evident in the older age groups.

(4) Education — These data reveal an unexpected and rather significant association of hypertension with the level of education. Those with a grade school education have a significantly higher prevalence of hypertension than those with a high school education, while those with a college education have the lowest prevalence. This association with educational achievement seems to be most pronounced in the 25-44 year age group and is somewhat less evident among those over age 65.

These data raise some very intriguing questions regarding the etiology of essential hypertension.

TABLE 3 — Projected Distribution for the State of Georgia of Hypertension Prevalence, Awareness, Treatment, and Control

Population >25 Years	=	2,300,206
Normal Blood Pressure	=	1,767,055
Hypertensive	=	533,151
*Unaware	=	103,833
*Not on Medication	=	77,087
*On Medication, BP High	=	90,926
On Medication, BP Normal	=	261,305
*In Need of Treatment	=	271,846

Could it be that in terms of personal self-esteem, being young, white, and well educated is viewed by members of our society as being more desirable than being old, black and uneducated?

Table 2 presents the percent of persons in each age, race, sex, and education group who are in need of detection, treatment, and/or control services. In other words, these data represent a composite of all those screened who either were unaware of their hypertension, were aware but not being treated, or were taking antihypertensive medication but still not under control. The data reveal the following:

(1) Age — The middle aged group is most in need of service.

(2) Race — Blacks as a group are far more in need of service than whites.

(3) Sex — Males need service more than females.

(4) Education — Those with a grade-school education need more service than their college-educated counterparts.

Utilizing the 1970 Federal Census, these data have provided a projected distribution for Georgia and its various subregions of hypertension prevalence, awareness, treatment, and control by age, race, sex, and education. The totals from these tables are shown in Table 3.

These data indicate the magnitude of the challenge of hypertension control in Georgia. Combining this evidence with studies which have demonstrated that hypertension significantly increases the risk of heart attack, stroke, renal and cardiac failure, along with clinical trials which have demonstrated the preventive value of hypertension control, all health professionals should be encouraged to make state-wide hypertension control a program of high priority.

Obesity, salt consumption, smoking, and diabetes are viewed in their relation to hypertension.

Risk Factors and Hypertension

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Introduction

THE PURPOSE of this paper is to discuss new information on the four well-known factors of obesity, salt consumption, smoking, and diabetes in their relationship to hypertension. A strong positive correlation between body weight and hypertension is well documented. Many obese people tend to become hypertensive, and 60% of hypertensive patients are obese (≥20% above normal weight). Blood pressure falls with weight loss. Equally impressive is the evidence of a direct relationship between salt intake and blood pressure. Blood pressure falls with salt restriction. Dahl emphasized that the fall of blood pressure with weight loss is due entirely to the salt restriction inherent in any low caloric diet.[1]

Dietary Intervention Studies in Georgia

When weight reduction is only modest, as shown in the Evans County (Georgia) study and in the Statesboro (Georgia) study, blood pressure normalization in obese hypertensive patients was accomplished with the restriction of NaCl to ≤3 g/day and the replacement of KCl in the kitchen as well as increased use of K+ rich foods.

In our experience in Evans County, weight reduction alone of 18 pounds explains some of the response of lowered blood pressure among 60 obese hypertensive patients randomly selected from the community.[2] The patients were not on diuretic therapy and were followed for 1 year. However, the correlation coefficient of 0.25 between weight change and diastolic blood pressure was small enough to look for additional explanations. They were found in the lowered sodium and increased potassium intake: NaCl consumption was limited to less than 3 grams/day and participants received potassium salt on a weekly basis (a family-sized package of potassium salt — KCl). A rigorous follow-up program was established, with patients being educated and reminded to use potassium-rich foods such as vegetables, salads, and fruits. The patients were required to maintain dietary diaries to record their food intake. The measurement of sodium excretion in the urine was attempted, but the technical problems were overwhelming in the free-living community, so this was discontinued. Augmenting the problem of the 24-hour urine collection among people actively pursuing their jobs outside their home is the notorious variability of the random 24-hour urine sodium excretion in the same individual.

In another hypertension intervention study in Statesboro in 1979, 70 black, hypertensive, obese women were followed by our medical team and, again, only a moderate weight loss of 12 pounds occurred over a 3-4 month period, but sodium intake was restricted to less than 2,000 mg (=40% of total NaCl) per day and potassium-rich foods were emphasized. Dietary compliance was recorded through the review of weekly food diaries. Blood pressure levels came down from 151/95 mm Hg to 131/83 mm Hg.

Under ideal circumstances one would like to do the "ultimate" experiment, a follow-up on data from animal experiments which suggest that the feeding of potassium chloride in hypertensives has protective properties in regard to hypertension. In such an experiment one would place one group of obese, hypertensive patients on a 2 to 3 g NaCl and 4 g K+ diet, keeping the weight stable. A second

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group of obese, hypertensive patients would be encouraged to lose weight, but would be instructed to use low-calorie, salt-rich food items such a bouillon, pickles, low-calorie salad dressing, low-fat cheese, canned vegetables, etc. This experiment, unfortunately, cannot be undertaken, since the majority of hypertensives are on diuretic drug therapy. In patients on long-term diuretic treatment who excrete potassium and sodium, the largest decrement among the electrolytes occurs in chlorides. Once chlorides have been eliminated, the potassium consumed, when taken *without* chloride, is not retained in the body and is therefore lost.[3]

As far as genetic influences in hypertension are concerned, it is well known that the best predictor for the development of hypertension is a positive family history for this condition and rapid weight gain.

Relationship of Hypertension with Cigarette Smoking and Diabetes

The relationship of hypertension to other cardiovascular risk factors, besides obesity, has only been studied systematically with two factors, cigarette smoking and diabetes. All investigators agree that hypertensive smokers run twice the risk of myocardial infarction and coronary death compared to non-smokers at each comparable blood pressure level. Major prospective studies of people in Framingham, Massachusetts, civil workers in England, a male population sample in Sweden and, more recently, the 10,000 patients of the Hypertension Detection and Follow-up Program concur in this unique risk situation which makes it absolutely mandatory for the hypertensive patient to quit smoking.

Hypertension in diabetics is found much more frequently than in the normotensive population in both men and women.[4] The reason for this frequent combination is not entirely explained by the obviously strong association between obesity and hypertension on the one hand and obesity and diabetes on the other hand.

Recommendations for the General Practitioner

Weight reduction and sodium restriction as adjunct therapy to antihypertensive medication may prevent the well-known side effects of drug treatment; i.e., hyperuricemia, hyperglycemia, and hypercholesterolemia, and enhance the blood pressure lowering drug effect. Whereas this desirable goal can be reached in most patients with moderate hypertension (100-105 mm Hg DBP) by placing them on a ≤3 g NaCl diet, some patients with mild blood pressure elevations (90-99 mm Hg DBP) may already favorably respond to a dietary NaCl restriction to less than 5 g/day, as recommended by the McGovern Senate Select Committee on Nutrition (1977). To dismiss sodium restriction as a useful alternative to total dependence on drugs because patient compliance is stated to be low is wrong. Most patients will comply with dietary advice if they believe it will be beneficial; however, the advice must be unequivocal, and results should be demonstrated to the patient by the reduction of drug requirements and the decrease in urinary sodium output. It is equally wrong to increase the dosage of diuretic drugs in the face of an increase in blood pressure levels without taking a detailed dietary history (one week's diary may suffice). Thus diet and especially sodium chloride intake still play a major role in the treatment of the hypertensive patient and in the severe hypertensive, is an adjunct to medication.

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It is important to distinguish between mild hypertension and borderline ("labile") hypertension before appropriate therapy can be initiated. The author discusses some of the results of the Hypertension Detection and Follow-up Program conducted between 1973 and 1979.

Current Perspectives on the Diagnosis and Treatment of Mild Hypertension

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New Data on the Results of Treating Mild Hypertension

THE Hypertension Detection and Follow-up Program (HDFP) was a study of 10,940 hypertensive white and black men and women between the ages of 30 and 69 years residing in 14 communities throughout the United States. Georgia was the only state selected to have studies represented in both urban (Atlanta) and rural (Evans County) settings. The studies were conducted between 1973 and 1979, and the results were announced in December, 1979. Prior to this time, there was considerable uncertainty about whether patients with diastolic blood pressure (DBP) between 90 and 104 mm Hg should usually be treated with antihypertensive drugs. However, the HDFP results indicate that the systematic and effective management of patients with confirmed DBP between 90 and 104 mm Hg is associated with a decrease in 5-year mortality from 7.4 to 5.9%, a 20% reduction when compared with patients treated less systematically and less effectively.[1] Furthermore, the reduction in mortality was documented in blacks as much or more than whites, and in the older age group (60-69 years) as much or more than the younger age groups.[2]

The only major concern about interpretation of the HDFP results is that there was no placebo or an untreated group against which the aggressively treated group could be compared. Hence, some of the improvement in blood pressure and mortality could have been attributed to nonpharmacologic factors. Clinical trials comparing drug and placebo therapy for mild hypertension are ongoing.[3]

Diagnosing Mild Hypertension

Because the HDFP results suggest that drug treatment is appropriate for patients with mild hypertension, it is relevant to review how this diagnosis was reached.[4] The initial visit by the patient required that the fifth phase DBP, taken in the sitting position with an appropriately sized cuff on the right arm, be ≥95 mm Hg (average of the last two of three consecutive measurements). A short-term second visit was then scheduled, and patients were classified as hypertensive only if the average resting DBP remained ≥90 mm Hg. The hypertension was further classified as mild if the average second visit DBP ranged 90-104 mm Hg.

Approximately 45% of the patients with initial DBP in the 95-104 mm Hg range had DBP <90 mm Hg on the rescreen. This type of blood pressure response is classified as labile or borderline hypertension and not as mild hypertension. Blood pressure monitoring at home may assist in classifying the usual level of blood pressure. For example, Julius et al.[5] found that 28% of patients with borderline blood pressure measurements obtained in a doctor's office were clearly normotensive when blood pressure determinations were obtained at home. Only about half of the patients with casual DBP 90-104 mm Hg will be confirmed as mild hypertensives.

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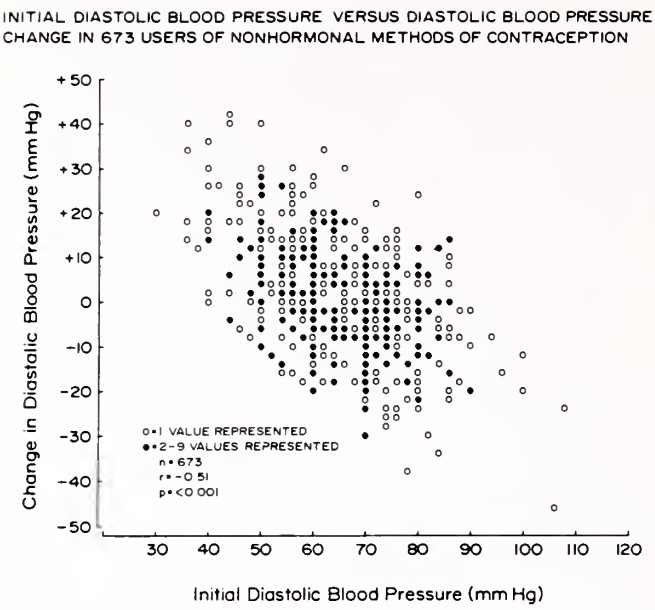


Figure 1 — Initial Diastolic Blood Pressure Versus Diastolic Blood Pressure Change in 673 Users of Nonhormonal Methods of Contraception. (Adapted from Blumenstein BA, et al. Am J Epidemiol 1980;112(4):539-552.)

The spontaneous reduction in blood pressure on repeated visits is documented repeatedly in community screening programs.[6, 7] Lower follow-up blood pressure readings do not imply that the initial blood pressure measurement was erroneous or that the patient's blood pressure is normal. The usual explanation given is that, at the time of rescreening, patients are more accustomed to having their blood pressure taken, are in a more controlled environment, or may have reduced their intake of salt or alcohol since learning of their elevated blood pressure. However, initially high blood pressure readings tend to be lower when repeat measurements are obtained, and vice versa. This phenomenon is known to statisticians and epidemiologists as regression toward the mean. Figure 1 illustrates striking reductions in the DBP of 673 women in whom we repeated blood pressure measurements over a 6-month period.

Regression toward the mean may also be observed over a period of weeks or months in patients with confirmed elevations in DBP. Hence, pharmacologic therapy is not indicated in every patient with mild hypertension. Moreover, recent attention has been focused on systolic hypertension because systolic pressure is now known to be associated strongly with the risk of myocardial infarction, congestive heart failure, cardiomegaly, and stroke.[8] The patient with an average confirmed blood pressure of 182/94 mm Hg is an even more desirable candidate for drug intervention than is the patient with 136/94 mm Hg. Indeed, patients in the former category may already have cardiomegaly on chest x-ray, left ventricular hypertrophy on electrocardiography, or a thickening of the interventricular septum and posterior left ventricular wall on echocardiography.

The point of this section is that careful and repeated measurements of blood pressure are necessary to distinguish the patient with mild hypertension from the patient with labile or borderline hypertension. The distinction is important because most clinicians currently initiate pharmacologic therapy for patients with mild hypertension, but nonpharmacologic therapy for those with labile or borderline hypertension. Examples of nonpharmacologic therapy include risk factor counseling, weight reduction, reduction of alcohol intake, and restriction of dietary sodium intake.

Drug Therapy of Mild Hypertension

The overall principles and selection of specific pharmacologic agents for the hypertensive patient were reviewed in the September, 1980, issue of the *Journal*.[9] Additional comments are appropriate for the patient with mild hypertension.

The step-care approach is followed for the majority of patients, beginning with a thiazide or thiazide-like diuretic, and progressing to Step 2 drugs only if the DBP remains consistently ≥90 mm Hg after 2 to 4 weeks at the maximum doses.[10] In general, diuretic therapy provides adequate control of blood pressure in 30 to 40% of hypertensive patients. However, in patients with mild hypertension, diuretic therapy may provide adequate control of blood pressure in as many as 80% of patients. Elderly patients may respond to unusually low doses, and black women may be particularly responsive to diuretic therapy.

Step-down therapy may be appropriate in certain asymptomatic patients who have maintained prolonged control of blood pressure. In those receiving diuretic therapy, we sometimes reduce the dose by one-half if the systolic pressure remains below 100-110 mm Hg on repeated visits. This is particularly appropriate if the patient has asymptomatic orthostasis or if there is persistent mild hypokalemia or hyperuricemia. Occasionally, patients can be titrated slowly off all diuretic therapy without a return to hypertension. This occurs only rarely with either moderate or severe hypertension.

The long term therapeutic problem in mild hypertension is not selection of an effective drug. The problem is convincing asymptomatic patients that they should adhere to their medications and comply with their appointment schedules.

(See page 338 for list of References)

Cost, adverse reactions, and ease of administration are important factors to be considered when choosing a specific chemotherapeutic regimen for hypertension.

Chemotherapy for Hypertension

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CHEMOTHERAPY for high blood pressure can be categorized as follows: 1) diuretics, 2) adrenergic acting drugs, and 3) vasodilators. It is important for the physician to understand the mechanisms of action for lowering blood pressure, the interactions between the various agents, and the adverse reactions. The efficacy of any chemotherapeutic regimen has to be balanced against the possible adverse reactions as well as the cost. Cost and adverse reactions are major determinants of compliance. The purpose of this report is to describe the various agents now available for the control of high blood pressure.

Diuretics

There are many different thiazide diuretics. They are all basically the same, except that there is variability in potency (effect/mg) and duration of action. Hydrochlorothiazide can be considered the prototype diuretic for treating hypertension. Chlorthalidone (Hygroton®) and metolozone (Zaroxolyn®) are not thiazides, but the mechanism of action is the same. They are more potent mg for mg. There are no data available to indicate whether diuretics with longer duration of action than hydrochlorothiazide are any better for the control of hypertension. In terms of blood pressure control, Chlorthalidone 25 mg and metolozone 5 mg, are about equivalent to hydrochlorothiazide 50 mg and 100 mg, respectively. The more potent the diuresis, the more potassium depletion and uric acid retention there is. Metolozone is more effective than the thiazide diuretics when there is mild renal excretory failure. With more severe renal excretory failure, the loop or high ceiling diuretics should be used. These are ethacrynic acid (Edecrin®) and furosemide (Lasix®). These diuretics should not be used if renal excretory function is normal. Potassium sparing diuretics are weaker and not as effective as the thiazides and loop diuretics. These are triamterene (Dyrenium®) and spironalactone (Aldactone®). Some use them in combination with a thiazide (Dyazide® and Aldactazide®).

Potassium depletion is the most common adverse reaction of diuretic therapy. It is difficult to predict, but it is related to the degree of sodium diuresis, renin release, and secondary aldosteronism. Potassium supplements should always be used with digitalis glycoside therapy. Cardiac dysrhythmias, both symptomatic and asymptomatic, can be caused by potassium depletion. This should be considered by the physician and potassium supplements used if such dysrhythmias are present. Symptoms of potassium depletion are protean in nature and difficult to prove. However, if a patient complains of weakness, fatigue or muscle cramps, potassium supplementation should be tried. It is difficult to know which level of serum potassium requires replacement potassium therapy. An asymptomatic patient with no cardiac dysrhythmias does not require potassium replacement when the serum potassium is consistently above 2.9 mEq/L. When potassium supplements are required, KCl and/or potassium sparing diuretics should be prescribed.

Thiazides can cause or aggravate hyperglycemia. Then potassium supplements and/or the use of spironolactone should be considered. An alternative is other chemotherapy without diuretics. Postural hypotension with tachycardia and azotemia may also be an adverse reaction to diuretic therapy. This is due to plasma volume contraction.

All diuretics cause uric acid retention, and for some patients it can result in serum levels above 10

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TABLE 1 — Average Wholesale Price (AWP) Comparison For a Month Supply of Diuretics*

Drug	Generic	
Hydrochlorothiazide		Oretic®, Esidrix®, Hydrodiuril®
50 mg QAM	18¢	$ 1.50
50 mg BID	36¢	3.00
Chlorthalidone		Hygroton®
25 mg QAM	—	$ 3.02
50 mg QAM	$2.09	3.92
100 mg QAM	—	4.90
Metolozone (Zaroxolyn®)		
5 mg QAM		$ 1.50
5 mg BID		3.00
Furosemide (Lasix®)		
40 mg BID		$ 6.18
80 mg BID		10.02

* The pharmacist will generally add a prescription cost of either $2 to $3 or 40% of the AWP. For some drugs it may be cheaper to prescribe a 3 months to 1 year supply.

mg/dL and/or gouty arthritis. Discontinuation of the diuretic, the use of spironolactone, triamterene, or other chemotherapy should be considered. The other alternative is chemotherapy with colchicine, probenecid, or allopurinol as required. As the treatment regimen becomes more complex, however, patient compliance becomes a factor as well.

As seen in Table 1, generic hydrochlorothiazide can be obtained at a lower cost than other diuretics. Metolozone is the next more economical diuretic. Potassium chloride supplements are not inexpensive. Liquid KCl, 40 mEq/day, costs (AWP) $10/month, KCl tablets (Slow K) at 40 mEq/day costs (Direct) $8.50/month. The cost (AWP)/month of colchicine and probenecid is $1.30 and $5.05. Colbenemid® is $5.89/month. Allopurinol is $6.45/month. The cost per month, therefore, for diuretic therapy plus potassium supplement and chemotherapy for gout and/or hyperuricemia can vary from approximately $14.50 to $28 a month, depending on whether generic or brand names are prescribed (AWP).

Adrenergic Acting Drugs

Reserpine, clonidine (Catapres®), methyldopa (Aldomet®), propranolol (Inderal®), metoprolol (Lopressor®), and nadolol (Corgard®) are central nervous system (CNS) adrenergic acting drugs. All can cause adverse CNS reactions, such as nervousness, altered sleep pattern, emotional lability, depression, lethargy, impotence, and fatigue. The efficacy for blood pressure control is similar for all these with differences related to dosage. In general, the adrenergic acting drugs alter renal function and cardiovascular reflexes so that plasma volume becomes a major determinant of blood pressure with a positive direct correlation; the higher the plasma volume, the higher the blood pressure. Addition of a diuretic then offers even better control of blood pressure. However, it is not always necessary to use a diuretic, and only a trial regimen for each patient can ascertain the need.

Reserpine in a maximum dose of 0.25 mg per day does not lower blood pressure by catecholamine depletion. Blood pressure reduction is due to a CNS effect. At the above maximum dose, the incidence of adverse reaction is similar to the other CNS adrenergic acting drugs. Nasal stuffiness is an exception; it does occur more frequently. Optimum blood pressure may not be reached with 0.25 mg per day in some patients. Other CNS adrenergic acting drugs can be used in higher relative doses and result in better blood pressure control. Doses of reserpine greater than 0.25 mg/day are not recommended because of possible adverse reactions. However, if 0.1 to 0.25 mg/day results in blood pressure control, reserpine is an ideal drug. It can be given once daily and is very inexpensive.

Methyldopa and clonidine decrease blood pressure by CNS alpha adrenergic agonistic activity. The result is decreased CNS sympathetic outflow and decreased blood pressure. Methyldopa is transformed to alphamethyl norepinephrine, which is an alpha agonist. Clonidine is an alpha agonist and does not require transformation. Both are similarly effective. Postural hypotension and dry mouth are not infrequent adverse reactions. Bradycardia can occur with both but is more frequent with clonidine. Abrupt withdrawl of clonidine will result in rapid (36 to 48 hours) return of blood pressure to pretreatment levels and often to much higher levels (rebound). This may result in sweating and tachycardia. Withdrawal symptoms of restlessness, nervousness, nausea, and vomiting can occur. Treatment

TABLE 2 — Costs of Adrenergic Acting Drugs

Drug	Dosage mg/day	Cost per Month (AWP)
Reserpine	0.25	$ 1.14
Methyldopa	750	9.59
	1500	19.19
	3000	34.56
Clonidine	0.2	6.76
	0.4	9.52
	0.8	19.04
	1.2	24.80
Propranolol	80	5.07
	160	10.15
	320	16.72
Metoprolol	100	6.35
	200	11.44
	400	22.87
Nadolol	80	9.54
	160	12.00
	300	24.00

should include clonidine or intravenous alpha and beta blockade. Antibodies to red cells (positive Coombs' test), positive ANA, and elevation of liver enzymes (SGOT, SGPT) are not infrequent complications of methyldopa. Chronic active hepatitis is infrequent as is hemolytic anemia. Because of the above, clonidine is the drug of choice when compared to methyldopa; it also costs less.

Beta blocking drugs (propranolol, metoprolol, nadolol) most likely lower blood pressure by a CNS effect. Inhibition of renin release and reduction of cardiac output by beta blockers is not a reasonable explanation of the blood pressure reduction noted in most patients. In contrast to propranolol and metoprolol, nadolol is not metabolized by the liver and is cleared mostly by the kidneys. Therefore, dosing requires adjustment in the presence of renal failure. Bradycardia, claudication, Raynaud's Syndrome, and impotence may be problems with propranolol, metoprolol, and nadolol. None of these drugs should be given to a patient with asthma. Metoprolol has less effect on bronchiolar smooth muscles than does propranolol or nadolol. However, at doses above 100 mg per day there is no advantage. Nadolol may be effective in a once a day dose schedule, while propranolol or metoprolol are most effective with at least a twice daily dosage.

The beta blocking drugs can be effective for the control of high blood pressure. They should be used with caution when given to insulin-dependent diabetics. Asthma and heart failure are contraindications for the use of beta blockers. Moreover, patients with peripheral vascular disease should not receive these drugs if other chemotherapy can control hypertension. Adverse reactions are not uncommon, and the incidence is no different from other drugs. They

TABLE 3 — Costs of Peripheral Adrenergic Acting Drugs

Drug	Dosage mg/day	Cost per Month (AWP)
Prazosin	2	$ 6.21
	4	8.65
	10	14.88
	20	29.66
Guanethidine	10	4.00
	25	5.40
	50	10.80

are no more effective than other CNS adrenergic acting drugs. In terms of cost and simplicity of the dosage regimen, reserpine is an excellent drug (Table 2).

Peripheral Adrenergic Acting Drugs

Prazosin and guanethidine are peripheral adrenergic acting drugs. Their costs per dosage are listed in Table 3. Prazosin is a post-synaptic, alpha-blocking agent. Guanethidine enters the post-ganglionic adrenergic neuron and acts as a false neurotransmitter. It also blocks nerve transmission. Both cause postural hypotension, guanethidine more so than prazosin. Guanethidine tends to cause bradycardia. Neither drug causes adverse CNS reactions. Impotence is associated with guanethidine but not with prazosin.

Vasodilators

Hydralazine and minoxidil are the oral vasodilators currently available. Both act directly on arteriolar smooth muscle to lower peripheral resistance. When given alone, however, reflex tachycardia and plasma volume expansion occur. Both require an adrenergic acting drug to prevent tachycardia. A diuretic is sometimes required to counteract the plasma volume effect on blood pressure. Minoxidil is a potent vasodilator, and plasma volume expansion with fluid retention and peripheral edema is common, especially when there is renal excretory failure. Congestive heart failure may also be a reaction, in which case vigorous diuretic therapy is necessary. Excessive hair growth on the face is also a problem, especially for women. Nevertheless, minoxidil can be an effective, life-saving agent for some patients.

The goal of chemotherapy is to prevent and delay the complications associated with hypertension including stroke, heart failure, renal failure, accelerated hypertension to malignant hypertension, hypertensive encephalopathy, dissecting aneurysm, and the worsening of angina pectoris. There are no solid data to demonstrate a significant direct correlation between the reduction in blood pressure and the prevention of the complications.

Since complications often take months or years to

TABLE 4 — Costs of Vasodilators

Drug	Dosage mg/day	Generic	Cost/Month (AWP) Apresoline®
Hydralazine	50	$3.21	$ 6.30
	100	4.80	8.70
	200	6.75	11.40
Minoxidil	5.0		7.48
	10.0		8.24
	20.0		16.48

become manifest, the physician must have as his goal for chemotherapy the reduction of diastolic blood pressure. This is true even though there is no direct evidence linking the level of diastolic blood pressure control to the prevention of complications. Despite this, an accepted goal of chemotherapy is to control diastolic blood pressure to less than 90 mm of Hg. However, this often has to change upward in order to circumvent adverse reactions. Most adverse reactions, and certainly the cost of chemotherapy, are directly related to the dosage. The least amount of medication necessary to reach the optimum blood pressure with a minimum of adverse reactions should also be a goal. The choice of chemotherapy should be such that the medication is taken once or twice a day. Cost should also be a factor in the selection of a specific drug (Table 4). If these principles are considered, then compliance will be much better.

The stepped-care approach of chemotherapy to achieve the optimum blood pressure is first to use a diuretic followed by an adrenergic acting drug and then a vasodilator.[1] There are no physiologic or pharmacologic principles which dictate such an approach. It simply is a regimented method of chemotherapy. Either a diuretic or an adrenergic acting drug alone will achieve optimum blood pressure control in 25-30% of patients. A combination of the two will result in approximately a 50-60% control. The addition of a vasodilator will further increase control to 70-80%. Those patients whose blood pressure is not controlled with a diuretic, adrenergic acting drug, and a vasodilator present difficult problems. Problems with compliance may be the cause.

Patients with polycythemia should not be given a diuretic to control hypertension. An adrenergic acting drug with the addition of a vasodilator should be the first choice. A beta blocking drug should be considered if the patient has ischemic heart disease in the absence of heart failure.

Reference

1. The Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. The 1980 Report of the Joint National Committee on detection, evaluation, and treatment of high blood pressure — special report. Arch Intern Med 1980;140:1280-1285.

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Sixth grade school children in Georgia were trained to measure blood pressure so they could measure the blood pressure of adults and children in their communities.

Blood Pressure in School-Aged Children in Georgia

KENNETH COOPER, JR., Ph.D., *LaGrange,* SANDRA L. OWEN, R.N., B.S.N., RICHARD P. HOLM, M.D., *and* ALBERT W. PRUITT, M.D., *Atlanta**

Introduction

In 1973 the Committee on Heart Health Education for the Young of the Georgia Affiliate of the American Heart Association instituted an educational program of blood pressure in the state. The goal of the program was to be an educational program with a unique skill component (blood pressure measurement). This was to provide practical information on blood pressure control with the hypothesis that the child would learn for his/her own benefit and as well would transfer this information to the parent. To do this, blood pressure measures were done in the home.

Methods

A 2-week cardiovascular health education program specific for hypertension was used to educate school teachers and sixth grade students about blood pressure control, and to train these individuals in the technique of blood pressure measurement. A teaching stethoscope was used for skill assessment, and deviation of more than 4 mm Hg between instructor and trainee disqualified the trainee.

Sixth grade students underwent 4 days of instruction with repeated practice time for establishing blood pressure technique. Each student was evaluated, and only those assessed as skilled participated in the present study. Adult-size cuffs and aneroid gauges were used for measurement in the classroom and in the home. The fifth phase Korotkoff sound was used as the diastolic pressure.

TABLE 1 — Counties Involved in Student-Conducted Blood Pressure Surveillance Program in Georgia, 1977-1979

Baldwin	Gordon
Banks	Gwinnett
Bartow	Habersham
Berrien	Hall
Bleckley	Heard
Bulloch	Houston
Carroll	Laurens
Cherokee	Meriwether
Clayton	Muscogee
DeKalb	Oglethorpe
Dodge	Paulding
Dougherty	Putnam
Early	Stephens
Evans	Thomas
Fulton	Toombs
Gilmer	Ware

The present data are derived from 3,000 subjects between 8 and 16 years of age in 32 counties in Georgia (Table 1). In each instance, the examiner was a sixth grade student who had undergone instruction as described above.

Results

The data presented in Figure 1 are based upon a survey of school-aged children between 1977 and 79. More than 80% of the subjects were white, and there were approximately equal numbers of males and females. The age, race, sex, and blood pressure were recorded for each individual. In the relationship of age to blood pressure, the 95 percentile level of systolic pressure remains stable from age 8 years through 11 years at 120 mm Hg. The 95 per-

* From the Committee on Heart Health Education for the Young in the Georgia Affiliate of the American Heart Association and the Departments of Pediatrics and Medicine, Emory University School of Medicine in Atlanta, and the Department of Computer Science, LaGrange College. Send reprint requests to Dr. Pruitt at 69 Butler St., SE, Atlanta, GA 30335.

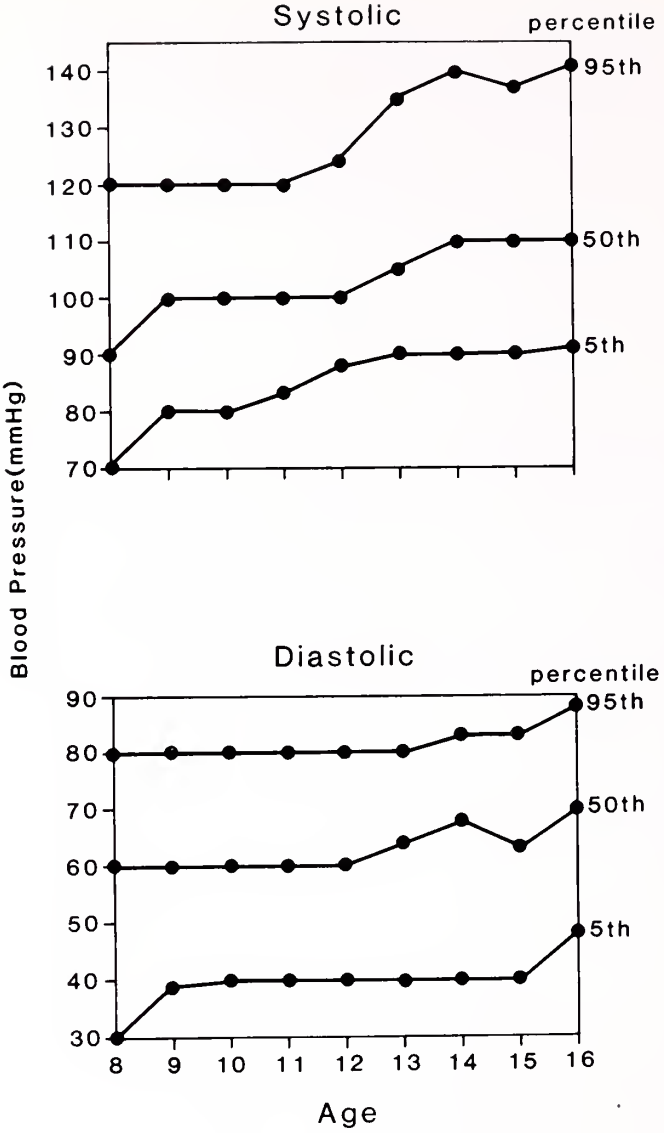


Figure 1 — Selected percentiles of blood pressure in children of different ages for 3000 subjects, obtained by 6th grade students in 32 Georgia counties.

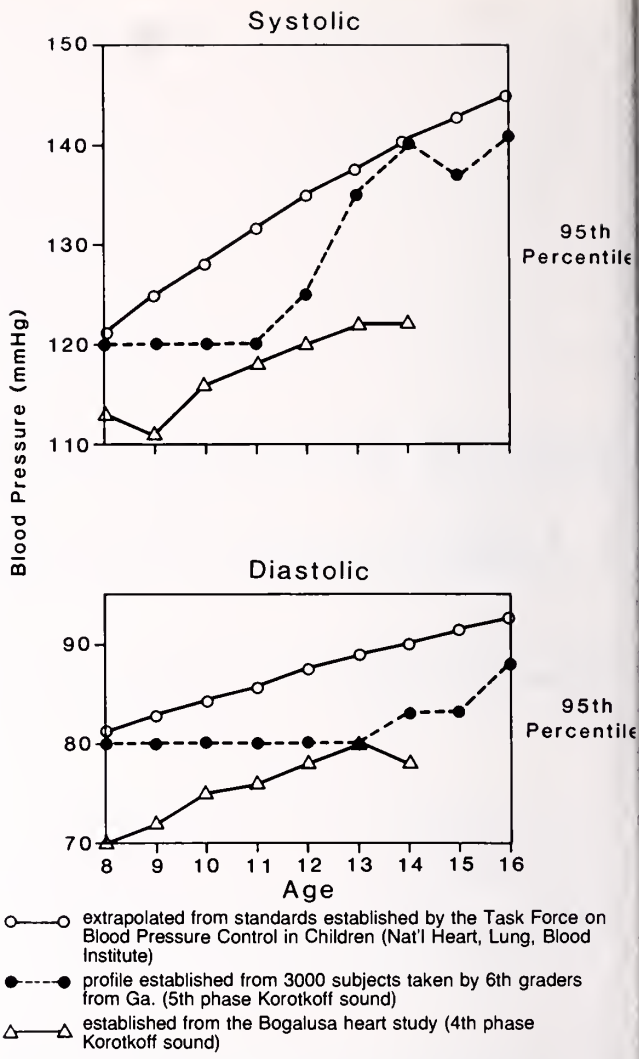


Figure 2 — 95th percentiles of blood pressure in children of different ages — a comparison of three sources.

centile diastolic pressure is constant at 80 mm Hg for the same age group.

After age 11 years, however, increases occur, especially in systolic, and, to some extent, in diastolic pressure. For the early teenage years, 95 percentile for blood pressure in Georgia children is 136-140/80-90 mm Hg.

When compared to the data reported from the Bogalusa Study[1] and the summary data from the Task Force Report,[2] the values from the Georgia survey fall between the levels established in those two reports (Figure 2).

Discussion

A number of surveys of normal blood pressure in children have been carried out in various environments. The graphs published by the Task Force on Blood Pressure Control in Children[2] were drawn from data collected in Iowa, Minnesota, and Florida. The values published by Voors et al.[1] were obtained from a well-defined population in Louisiana. Other studies have been carried out in physician's offices,[3] through the school system,[4] and through county surveillance organizations.[5]

In the present study, school children in the sixth grade were taught the technique of blood pressure measurement. The youngsters then measured blood pressure in adult relatives as well as in siblings and friends. The measurements obtained from the children and adolescents between 8 and 16 years of age constitute this report.

Although the sample size reported herein is relatively small, it now appears that more than 30,000 school-aged children in Georgia will have blood pressure measured by this same system in 1981-82. If additional follow-up studies confirm that these measurements are reliable, this method of surveil-

lance may be an important, low-cost technique for detection and epidemiologic study of elevated blood pressure in children which could be easily implemented in all regions of the country.

Acknowledgement

We gratefully acknowledge the assistance of Dr. Jack E. Birge and Dr. Robert Copeland in the organization of this project.

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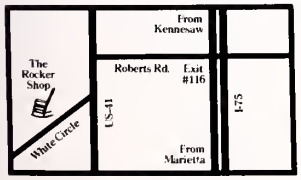
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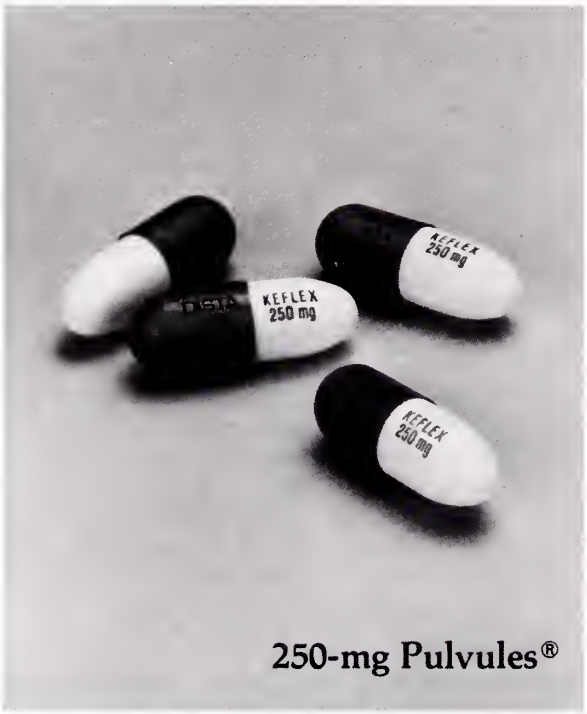
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The author describes a number of methods which have proven effective in increasing therapy compliance in hypertensive patients.

Practical Steps Towards Improving Patient Compliance With Anti-Hypertensive Therapy

WILLIAM McCLELLAN, M.D, *LaGrange**

PHYSICIANS GENERALLY perceive patient noncompliance with drug therapy to be a barrier to long-term blood pressure control. The degree of noncompliance is often underestimated by physicians, however, and is often found in 50% or more of patients on long-term drug therapy.[1, 2] Although the causes of noncompliant behavior are complex, miscommunication between the physician and the patient, failure to understand often complex instructions, failure to monitor current drug therapy, and lack of reward of desired behavior are often at the heart of the problem.[3-5] We have found that even in educationally marginal patients simple steps can be taken that often remedy these problems using resources available in every physician's office.[6, 7]

The first step in dealing effectively with noncompliant hypertensive patients is to identify the two types of noncomplaint behavior: failure to take the medicines properly and failure to keep appointments. Physicians generally underestimate the degree of patient noncompliance. A practical way of estimating compliance with therapy is to tally the percent of controlled hypertensives seen from week to week, which should exceed 75%. To estimate follow-up adherence, a prospective chart audit of all hypertensives seen over a period of time are monitored, and the number of visits missed is calculated. Adherence of more than 50% is quite good.[8-13]

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Identifying the Patient with Therapy Noncompliance

Noncompliance regarding office visits can be recognized only if appointments for hypertension follow-up are scheduled and recorded. Ideally, all therapy follow-up visits for hypertensives should be scheduled and recorded. Then, at the end of each day, nonattenders can be identified.

Initial Steps Toward Improving Compliance

There are simple steps that can be used with patients to increase the likelihood of compliance with an antihypertensive regimen. These include reduction of barriers to compliance, specific therapy design, and simple communication and educational techniques.

Barriers to Compliance

The single barrier to compliance that has been clearly shown to be amenable to modification is that of access to care.[14] Patients with an asymptomatic condition will not be inclined to accept long waiting times and inconvenient appointments. By providing convenient appointment times, keeping visits brief, and using office nurses for routine blood pressure checks during slack hours, readily accessible long-term antihypertensive care can be provided.

Therapy Design

Standard protocols exist for the treatment of most hypertensives and should be adopted when possible.[15, 16] Steps in the rational design of anti-

hypertensive therapy include establishing a therapeutic goal (the "optimum blood pressure"), titrating each drug to a maximum tolerated dosage before proceeding to the next "step" drug, using the least frequent dosage schedule possible, eliminating unnecessary medications, and tailoring medicine taking to other common daily activities.

Communication and Education

There is misunderstanding by physicians of the individual patient's ability to understand and retain information at any one visit. Information provided at one visit is often inadequate to convey the why and how necessary for compliant behavior. For this reason, each visit should be viewed as an opportunity to review with the patient the simple facts of the high blood pressure health belief model.[17, 18] This includes these statements: (1) "You have high blood pressure"; (2) "Hypertension and high blood pressure are the same"; (3) "High blood pressure causes strokes, heart disease, and kidney failure"; (4) "High blood pressure is never cured"; (5) "Therapy can control HBP and help prevent stroke, heart disease, and kidney failure"; (6) "You must stay on therapy for the rest of your life."

These simple, self-evident statements, are often forgotten by patients. Indeed, belief that HBP can be cured and stating that a physician said HBP therapy was no longer required are the two reasons most often cited by aware untreated hypertensives for not being in therapy.[19]

Drug Review

Review of the drug regimen at each visit is equally important. Patients frequently misunderstand how to take their medicines, and this can be corrected by verbally reviewing how the medicines are to be taken and making a drug card illustrating this information. Asking the patient to tell you what drugs he is taking, identifying them by name, function, or color, is an excellent way to conduct the drug review and provide invaluable information about the patient's current drug use.[11, 20]

Additional Steps to Enhance Compliance

These initial compliance steps are used by most physicians and should be an integral part in the treatment of all patients. Frequently, however, further intervention is required to achieve long-term therapy and follow-up compliance. These further interventions include increased supervision, reinforcement, and appointment reminders.[10]

Increased Supervision

Failure to achieve adequate, long-term blood pressure control in a patient may often be remedied by increasing the frequency of office visits for blood pressure checks, drug review, and teaching. Many of these visits may be handled by the office nurse, freeing the physician from the necessity of repetitive visits. We have found that visits to the physician or the nurse every 2 weeks until the blood pressure is controlled is highly effective.[13] Once the patient is able to achieve satisfactory blood pressure control, the interval between visits can be lengthened.[16] Often it is possible to involve the Georgia Stroke and Heart Attack Prevention Program (SHAPP) or adult health clinic nurse in the supervision of the hypertensive, with attendent increase in convenience and decrease in cost to the patient.

Reinforcement

Hypertensive patients on therapy are usually most interested in hearing from the physician how successful they have been in attaining optimum blood pressure. Frequently, however, we fail to provide this information in a concrete manner and the patient becomes discouraged.[18] Simple statements of recognition and praise of improvement or attainment of blood pressure control are essential.[10] The nurse and the physician should tell the patient what his blood pressure is and compare it to pretreatment and optimum blood pressures in an encouraging, praising manner. Successful recall of drug programs, weight control, and even appointment keeping should receive similar, sincere praise. This intervention can be quite effective in helping patients achieve treatment goals.

Follow up

When hypertensive nonattenders are identified, an effort should be made to contact them and reschedule their appointments often, particularly with stable hypertensives who have appointment intervals of many months. The patient will be grateful for this reminder and promptly reschedule. Obviously, there will be some attrition in any hypertensive patient population.[21, 22] To insure continuity of care, all patients should be reminded that therapy and follow-up are lifetime necessities. Using simple follow-up strategies (postcards and phone calls), we have been able to reduce nonattendance from 50% to 30% over a 12-month follow-up period.

Summary of Compliance Intervention

Noncompliance with therapy in follow up is a serious problem for the hypertensive patient. At present, this is the single major barrier to maintaining long-term blood pressure control. The physician has available a number of proven methods to improve compliance in his hypertensive patients. These tools include: reducing barriers to compliance, simplification of treatment, education with the HBP health belief model, frequent, patient-

oriented drug reviews, increased supervision, verbal reinforcement of desired behavior, and aggressive follow up of nonattenders.

Nursing Role in Compliance Enhancement

It is clear that many of these tasks can be delegated to the properly supervised nurse. This allows the physician to schedule educational drug review and blood pressure monitoring visits during office hours when patients might otherwise be seen. This also can reduce a number of barriers to compliance, including cost and waiting time. Patients readily accept teaching from office nurses. In turn, nurses are often best situated to identify and contact nonattenders. The office nurses used in these ways can augment the effectiveness of the therapeutic role of the physician.[11-13, 23, 24]

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This program offers a multi-dimensional treatment and rehabilitation program aimed at helping those afflicted with the disease of alcoholism or drug addiction. A variety of groups and activities are led by trained, experienced addiction counselors and therapists. Alcoholics Anonymous and Narcotics Anonymous are intrical parts of the program.

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Under the psychiatrist's leadership, patients on the adult unit are treated individually for depression, anxiety, schizophrenia, manic depressive illnesses, personality disorders and other similar disfunctions. The physician and treatment team work closely together on the patient's assets as well as problems in the social, psychological and physical areas.

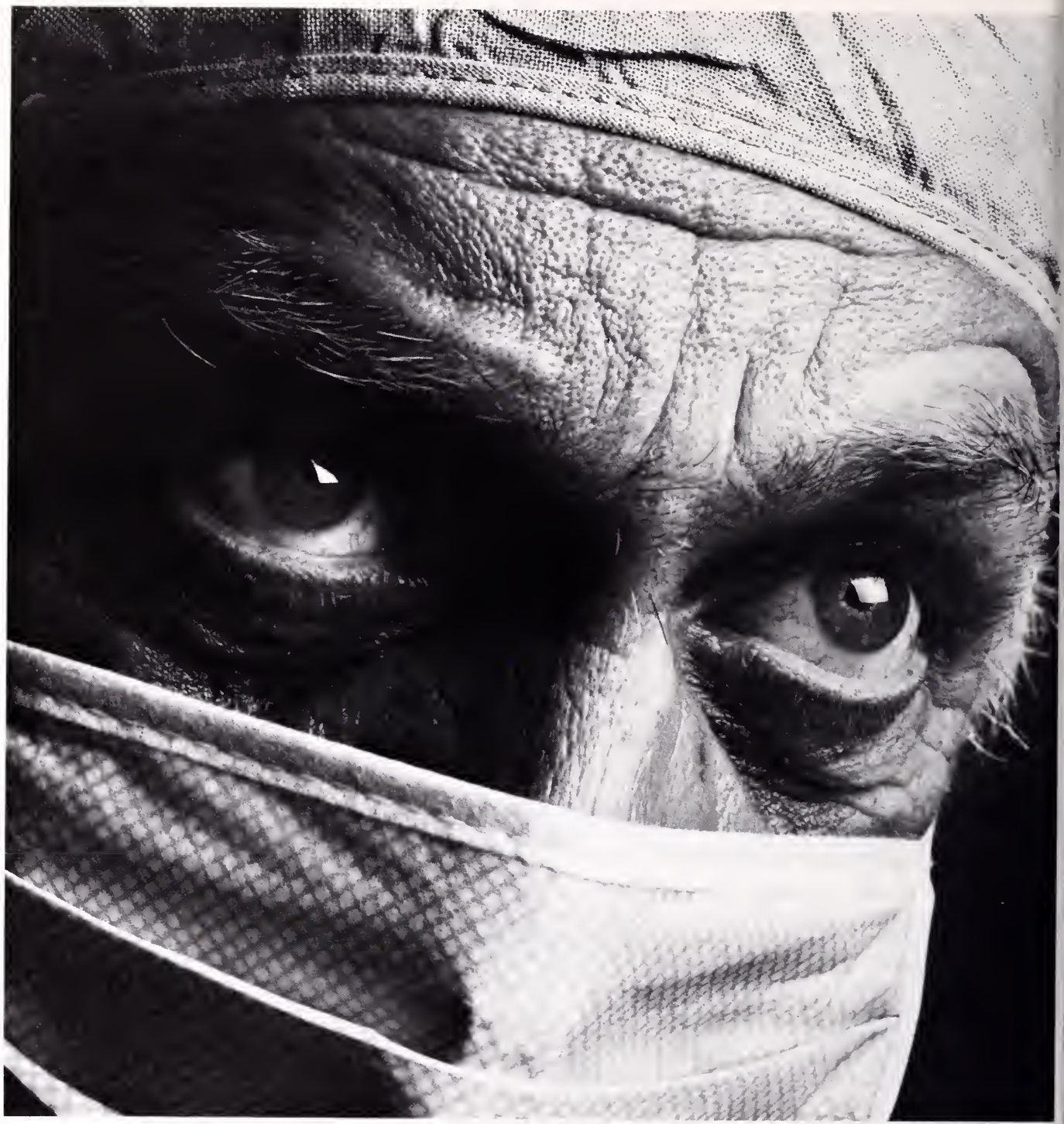
Adolescent Program

This unique program offers a wide range of treatment modes and emphasis is placed on resolving the emotional, behavorial and educational difficulties involving this age group. A fully accredited school lets the young people continue their education during the inpatient process. Classes are small and credits earned at Ridgeview are transferred back to their schools.

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Community educational programs have proven effective in reducing not only the incidence of hypertension but also many of the risk factors associated with it.

Regional and Local High Blood Pressure Control Programs

EUGENE HINES, *Fort Valley,* CHARLES E. POWELL, JAMES C. METTS, JR., M.D., *Savannah,* VICKIE GRIMES, R.N., and DAVID SATCHER, M.D., *Atlanta**

The Community Cardiovascular Council, Inc., Savannah

The Community Cardiovascular Council, Inc. (CCC) in Savannah, is one of the oldest high blood pressure intervention programs in the United States. Established in 1969, the CCC was initiated in an atmosphere of alarm: Savannah had a stroke-associated rate 4 times greater per 100,000 population than the national rate.[1] Under the leadership of Dr. James C. Metts, Jr. and Dr. John Elliott, a cross-section of interested groups were brought together to face this community health problem. From 1969 to 1972, the CCC expanded its membership to include leadership from all sectors of the community; compiled data to define the cardiovascular disease problems; and laid plans to directly intervene via mass screenings of the population (a radical idea at that time). By 1979, the stroke-death rate had declined by a full 40%, bringing the community rate closer to the national average.

In 1972, actress Patricia Neal, herself a recovered stroke victim, helped kick-off a mass community screening and education campaign. With blood pressure screening and data collection stations across the city; volunteers (lay and medical) screened 26,000 residents in five weekends in May. With an area population estimated at 180,000, many leaders of the CCC felt that the screening was a failure. They wanted to screen 100,000.

The collected data forms were analyzed and revealed that 30% of the adult population of Savannah had blood pressures in excess of 160/95. These people were referred to local physicians and clinics. Unfortunately, many of them could not afford private physician care and daily medications, nor did they qualify for the so-called "free" clinics of the county.

Calling on its contacts and resources (i.e., CCC membership), the Council saw the need to open a high blood pressure and risk factor management clinic to serve these "medically misplaced" citizens. This was accomplished in 1973, using local funding and volunteer physicians and paid nurses.

In 1974, the CCC received a $100,000 annual grant from the Georgia state legislature. This permitted the hiring of a director and small staff. The rental of additional office and clinic space was provided, at cost, by a local Hospital, Candler General Hospital. In 1975, the CCC, Candler Hospital, and the Georgia Infirmary pooled their resources to establish a day-care in Savannah for stroke patients. This program was prompted by the many stroke victims without rehabilitation resources, and it continues to operate today.

Also in 1975, the CCC began intervention programs for high school seniors in area schools. Each year, risk factor seminars and blood pressure screenings are held in every public and private senior class. Results indicate that 8-10% of this age group are hypertensive.

In the past 12 years, the CCC has conducted many

* Mr. Hines is Program Manager, Middle Georgia Community Hypertension Intervention Project, Fort Valley; Mr. Powell is Executive Director, and Dr. Metts is Council Chairman, Community Cardiovascular Council, Inc., Savannah; Ms. Grimes is a nurse practitioner at the High Blood Pressure Transition and Education Center, and Dr. Satcher is Chairman of the Department of Community Medicine and Family Practice, Morehouse College School of Medicine, Atlanta. Send reprint requests to Sandra Owens, R.N., B.S.N., American Heart Association, Georgia Affiliate, 2581 Piedmont Rd., Atlanta 30324.

mass screenings at shopping malls, county fairs, local schools, health fairs, etc. Today, 60% of the adult population has been screened. Beginning in 1976, the Savannah Fire Department assumed responsibility for blood pressure screenings. The fire chief and firefighters were trained by CCC nurses and began screening daily and referring people to strategically located stations. Other fire stations in the county eventually became involved, and there are now 16 locations where citizens can receive a free blood pressure check.

Today, the CCC offers a variety of services to the public at little or no cost: blood pressure screening, risk factor assessment, nutrition counseling, education programs, clinic services, on-call speakers, social worker services, research, and morbidity and mortality heart attack and stroke registry. It has been cited as a model program by the State of Georgia.

In the 1980s, the CCC continues to work innovatively toward its original goal: "to combine and coordinate the capabilities and physical facilities of the community and to develop cooperative arrangements for successful programs for education, detection, treatment, and rehabilitation as far as cardiovascular disease is concerned."

Middle Georgia Hypertension Intervention Project

The Middle Georgia Community Hypertension Intervention Project (CHIP), funded by the National Heart, Lung, and Blood Institute, is a 5-year program based at the Fort Valley State College in Fort Valley, Georgia. CHIP's purpose is to develop a multi-component program of high blood pressure control that can be replicated in rural communities throughout the nation. CHIP is conducted in conjunction with the Emory University School of Medicine. Its activities include high blood pressure education, detection of uncontrolled hypertension, referral, diagnosis, prescription, and follow up.

The community education program disseminates information about hypertension to increase community awareness and individual responsibility for hypertension control.

A two-phase, six-county survey operates to identify the incidence of uncontrolled hypertension as well as the behavioral habits of the respondents and their families. The survey research design covers four experimental counties, Crawford, Macon, Peach, and Taylor, and two control counties, Twiggs and Wilkinson. A total of 120 household units have been assigned to each of the experimental counties; 480 household units have been allocated for the two control counties. From these household units, a sample of 1,000 adults will be interviewed in the experimental counties together with a control sample of 1,000 adult respondents. Interviews were initiated in the second year of the project, with a final interview to be implemented in fifth year.

The goal of the multi-component CHIP program is to effect a 10% lowering of uncontrolled hypertension among the adults screened in the experimental counties.

Morehouse Community High Blood Pressure Control Program

Community high blood pressure control is important in dealing with the problem of hypertension. Despite the fact that hypertension is an individual, and in some ways family problem, the approach to control must include community intervention. The reasons for this, of course, relate to the fact that people live, work, and play in groups and are often greatly influenced in that context.

In 1973, we observed that hypertension was a leading cause of death in the Watts neighborhood in Los Angeles, California. We first set out to assess community knowledge of hypertension by both using a questionnaire and going before many different kinds of community groups including the PTA, church groups, parent groups, and adult schools. We discovered that there were major misconceptions about hypertension which hampered its control.

Because of confusion about what hypertension was, many people felt that to control it they had only to make internal adjustments as opposed to seeking medical care or that the problem of hypertension was an acute one requiring only a single bout of medication in order to deal with the problem. With this in mind, we organized a Prevention Health Education (PHE) team within the Department of Community Medicine to not only supply people with information but to also motivate them to make necessary adjustments in their lifestyles to control their hypertension.

Members of the team included a community health worker, a poet, a dancer, a health educator, a nurse, and a part-time physician. Together this team went out into the community and performed before diverse groups, including churches, PTAs, schools and others. Dance and poetry were combined with didactics to inform and motivate audiences. At each point, the Preventive Health Education team endeavored to correct known misconceptions, to supply the audience with additional information about the problem of hypertension and to respond to any questions which the audience had. Each of these educational sessions was paired with screening activities. Education was linked directly to screening which was linked directly to referrals to places of long-term care. It was learned very early in the program that it was important to have transitional-type clinics, such that people who needed to be followed until a diagnosis could be firmly established could be cared



For blacks, the incidence of hypertension is greater than for whites; among blacks, men tend to experience less hypertension than women.

for. Thus the Hypertension Free Clinic was organized in the basement of a large church in the Watts community. Over a period of four years, this Preventive Health Education team and its affiliated screening and treatment activities identified thousands of people as hypertensive and referred them to either private physicians in the community, to the Hypertension Clinic in Martin Luther King Hospital, or to some other facility.

The School of Medicine at Morehouse, as a developing institution, is committed to dealing with the leading causes of death in the surrounding community. With this in mind, we learned very early that the Area III Health Systems Agency has identified hypertension as a leading cause of death in our service area and has shown that the death rate from hypertensive-related disease is six-times greater in the black community as in the white community of Area III. Therefore, we have designed a program to deal with this problem in southwest Atlanta, an area which includes the Atlanta University Center (the largest complex of black private institutions in the world), as well as the very high-risk West End and surrounding communities.

Our strategy is to first organize a network of community education programs throughout the southwest Atlanta community. Here the plan is to organize a team which will train people in different community centers, including churches, social service agencies, and schools, to educate their constituencies about the problems of hypertension and what they can do to deal with those problems.

The next step is to organize a monitoring or transitional clinic where people can go at any time to have their blood pressures checked, either for initial diagnosis or for follow up. It is intended that these people be treated until they can be referred to another source of care. We realize that these referrals may be more difficult in Georgia than in California because of the difference in the Medicaid Program. In California, everyone was eligible for Medicaid depending upon income, whereas in Georgia one has to be disabled or involved in Aid to Dependent Children. Therefore, the transitional clinic takes on additional importance as we seek to find sources of care for persons identified as being hypertensive.

High Blood Pressure Transition and Education Center

Emory University's High Blood Pressure Transition and Education Center is funded by the Georgia Department of Human Resources to serve as a source for the diagnosis, evaluation, education, and referral of hypertensive individuals.

Preliminary diagnosis is confirmed by multiple blood pressure measurements according to protocols developed by the Hypertension Detection and Follow Up Program. Medical evaluation including laboratory work, electrocardiograms and chest x-rays are forwarded to referral care sources.

Patient education for all confirmed hypertensives includes a description of the mechanics of hypertension, possible end-organ damage, explanation of various treatment modes, and nutritional counseling.

Referral services include private physicians, community primary health clinics, Grady Memorial Hospital outpatient and satellite clinics, and special high blood pressure projects.

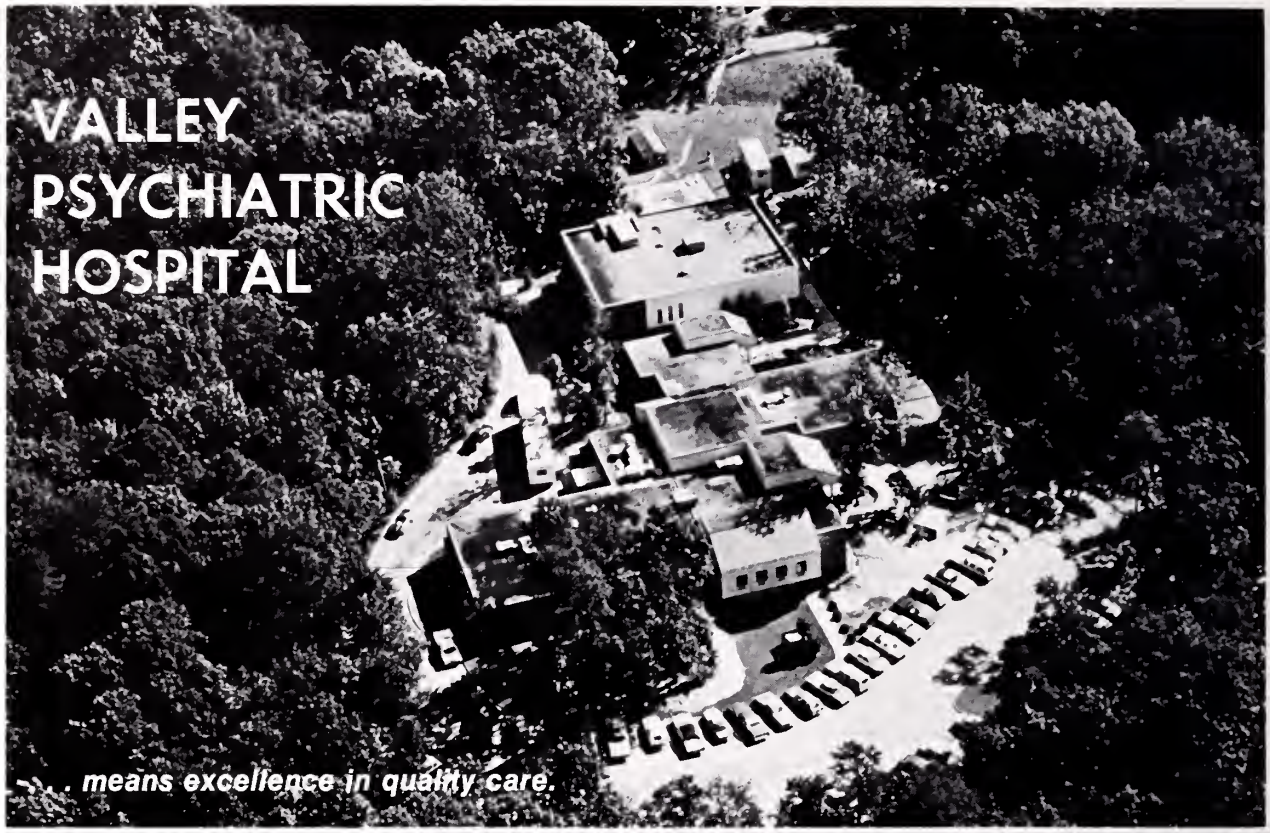
The High Blood Pressure Transition and Education Center can assist clients with varied needs:

— secondary screening after one recent elevated blood pressure
— referral to an affordable, convenient chronic source of care for newly diagnosed hypertensives
— referral to a new source of care for patients previously under chronic care (i.e. financial change, newly moved to Atlanta)
— special education needs such as compliance counseling, diet counseling

Referrals to the center may be made by physicians, health department clinics, specialty clinics, and any screening facility or program.

Reference

1. Kuller L, et al. The Collaborative Community Stroke Study — 1969. A Comparison of Seven Counties Throughout the United States. Unpublished study.



Valley is a fully accredited private psychiatric hospital staffed by professionals with outstanding credentials in the field of mental health and emotional disorders.

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Valley is a 100-bed private psychiatric hospital nestled in an 81-acre wooded area on the outskirts of Chattanooga, Tenn. Structured clinical programs include:

ADULT PSYCHIATRIC PROGRAM—Admission to the adult program at Valley involves diagnostic procedures such as complete physical examination, psychological testing, psychiatric evaluation and review of social history. Based upon results of these initial tests, the patient's attending psychiatrist together with members of the psychiatric treatment team develop a total treatment plan which may include group therapy in addition to individual therapy, occupational and recreational therapy as well as family involvement.

Weekly meetings of the treatment team are held to modify the original treatment plan based on the patient's progress while in the hospital.

CHILD AND ADOLESCENT PROGRAM—Valley maintains a child and adolescent program for youngsters undergoing specific difficulties in growth and development. This program provides individual as well as group therapy and includes activities in art, sports and field trips of special interest to this age group.

An active school experience is part of this program. Individual lesson plans, administered by special education teachers and worked out with the children's own school district educators, keep them from falling behind peers in their own community school. Because the student is allowed to move at his own pace in an individualized program, he develops confidence and self-discipline.

The Valley program regards adolescence as a psychological growth process—not a disease—so that time, skill and experience are critical ingredients of the treatment.

SUBSTANCE ABUSE PROGRAM—This treatment team is trained and experienced in the treatment of alcoholics and other drug-dependent persons.

A number of approaches are used in the treatment of alcoholism and/or drug abuse: individual and group therapy, substance abuse counseling, lectures, communication skills training, pastoral counseling, physical and recreational therapy, the 12 Steps of Alcoholics Anonymous, Antabuse therapy, and various forms of adjunctive therapy. Whenever possible, family members are urged to become involved in the patient's treatment through out-patient family and individual counseling.

REFERRAL—Valley maintains a 24-hour, seven-day-a-week emergency referral service. Referrals are accepted from psychiatrists and other physicians, the clergy, social workers, mental health professionals, social agencies, self and family.

Valley is fully accredited by the Joint Commission on the Accreditation of Hospitals.

Dr. Robert G. Aug, M.D., Medical Director

Dr. G. Michael Schmits, M.D., Medical Director of the Child and Adolescent Program

Dr. Kenneth E. Shoemaker, M.D., Medical Director of the Substance Abuse Program

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Financed by state and federal funding, a variety of organizations and groups offer high blood pressure detection and treatment programs for an ever-increasing segment of the Georgia population

Statewide Community High Blood Pressure Control Programs

MARGARET CHIAPPINI, R.N., MARY ANN HENSON, R.N., M.N., JOSEPH A. WILBER, M.D., *Atlanta;* and WILLIAM McCLELLAN, M.D. *LaGrange**

Trends in Blood Pressure Control in Georgia

Since 1963, there has been a marked improvement in hypertension control in Georgia (Table 1). Many organizations and groups are responsible for this improvement: the Georgia Heart Association and its volunteers conducting blood pressure measurement screening and providing public and professional education; the media with their statewide reach of educational messages; and most importantly, individual physicians and organized medicine providing diagnoses and encouraging effective treatment. Contrary to previous expectations, it is apparent that the present health care system has been able to absorb this increased patient load in most areas of the state.

TABLE 1 — Trends in Blood Pressure Control — Georgia

	1963		1976-1977	
	%	# (est.)	%	# (est.)
Prevalence of HBP (adults)	25	431,000	25	531,000
Unaware	41	176,000	18	102,000
Aware, untreated	25	108,000	12	78,000
Treated, uncontrolled	20	86,000	16	100,000
Treated, controlled	14	60,000	53	261,000

* Ms. Chiappini is Program Manager, FOCUS Grant, Adult Health, and Ms. Henson is Manager, Stroke and Heart Attack Prevention Program, and Dr. Wilber is Medical Consultant, Georgia Department of Human Resources, 618 Ponce de Leon, Ave., NE, Atlanta, GA 30308; and Dr. McClellan is Chairman of the High Blood Pressure Committee of the American Heart Association, Georgia Affiliate and practices internal medicine and nephrology at the Clark Holder Clinic in LaGrange. Send reprint requests to Dr. Wilber at the above address.

Stroke and Heart Attack Prevention Program

Since 1974, a defined role for public health in Georgia in the community control of hypertension has evolved. In that year, Governor Jimmy Carter and the Georgia legislature appropriated state funds for a public health hypertension control program, the Stroke and Heat Attack Prevention Program (SHAPP). It is funded with both state and federal funds.

The purpose of SHAPP is to reduce the morbidity and mortality from stroke, heart disease, and renal failure in Georgia by identifying those at risk in order to give them the opportunity to modify these risks by changing their lifestyles and by preventive medical therapy. The program is administered by the Adult Health Unit Division of Physical Health, Department of Human Resources.

Patient services are provided through county health departments. These services include: screening; rescreening; referral; diagnosis; treatment (state funds only); patient, professional, and public education; and follow up to ensure compliance with appointments and therapy.

All of the programs have continuous, ongoing screening clinics in local health departments. Specific industrial and civic group screenings are also done by each program in cooperation with civic groups and the Georgia Affiliate, American Heart Association. Mass shopping-center type screenings are occasionally done for the main purpose of providing general public awareness.

Those persons with elevated blood pressures at initial screening are given an appointment to go to the health department for rescreening. If the blood pressure remains elevated, referral is made either to

a private physician, the health department SHAPP clinic, or another clinic, depending on the choice of the individual and/or available resources. The individual is given a copy of all test results to take to his/her physician.

Follow up to ensure the appointment was kept is done through letters and/or phone calls to the individual.

Diagnosis/Treatment

A. **Monitoring.** The most popular of the services offered by health departments is monitoring the patients under treatment. The patients are under the care of private physicians and come to the health departments for blood pressure measurements and counseling. The physician usually will suggest to the patient that he go by and have his blood pressure



An American Heart Association volunteer nurse checks blood pressures during a screening at an office building. High blood pressure screening for business, industry and governmental agencies is one of the community service programs of the Heart Association in the fight against heart disease. Two common end results of uncontrolled high blood pressure — heart attack and stroke — claim the lives of 18,000 Georgians each year. High blood pressure can be controlled, but the only way to find out if you have it is to have your blood pressure checked.

measured periodically, or in some cases, the patient himself already knows the health department provides free blood pressure checks and will go on his own initiative to the health department at periodic intervals.

B. **Joint Management.** A second group of patients falls into a joint management category of diagnosis and treatment. These patients have a private physician who makes the diagnosis and prescribes therapy. Then, usually for economic reaons, the patient is referred to a SHAPP clinic for education and follow up. Patients receive all the services described above for these patients under health department management. They may or may not receive laboratory tests and free medications, depending upon the wishes of their physician and/or their financial eligibility. Physician contact is made for patients who develop problems and/or at 6 to 12-month intervals for evaluation.

C. **Public Health Management.** This is available to those who are unable to obtain private care. In health department clinics, the initial history, physical assessment, and laboratory tests are usually done by specially trained nurses following protocols based on national guidelines. The information is then confirmed by a physician who makes the diagnosis and prescribes therapy. Patients are then systematically followed by nurses who are supervised by physicians available for complications or problems.

The Adult Health Unit provides laboratory tests, i.e., glucose, cholesterol, sodium, potassium, serum creatinine, and uric acid level, for use in the diagnosis and treatment. Three basic antihypertensive medications, i.e., hydrochlorothiazide diuretics, reserpine, and hydralazine, are provided through state funds to those patients documented as medically indigent with no third part reimbursements available.

At each visit, for those patients whose blood pressure is not at goal level, compliance with therapy is explored. Reasons for control failure are explored, and, when necessary and feasible, adjustments are made to allow for better compliance. For example, the medication schedule may be rearranged or changed; the nutritionist may revise the diet to better fit food preferences, income, etc.

Focus on Coordination for Unified Services Adult Health

The Adult Health Unit of the Department of Human Resources has been awarded a 5-year contract by the National Heart, Lung, and Blood Institute (NHLBI), totaling $2,700,000, to demonstrate the effectiveness of statewide hypertension control on control success and the reduction of mortality from hypertension related diseases. This statewide hypertension coordination program stems from a 1976 Congressional initiative by the House Committee on Appropriations.

The first four states to receive funds for this program were California, Connecticut, Maryland, and South Carolina. The program was expanded in 1979, resulting in awards to Georgia, Michigan, and Maine.

Georgia's program, which goes by the name of FOCUS (*F*ocus *O*n *C*oordination for *U*nified *S*ervices) is under the direction of Dr. Joseph A. Wilber of the Department of Human Resources and Dr. Neil B. Shulman of Emory University School of Medicine. The major objective of FOCUS is to reduce the number of Georgians with diastolic blood pressure of 105 mmHg or higher by 50% over the next 5 years.

During the first year of the program, a baseline investigation of the state will be conducted to determine the following:

(1) The current prevalence, treatment, and control levels of high blood pressure through a random household sample survey;
(2) Current statewide high blood pressure resources and utilization patterns;
(3) Mortality and morbidity rates associated with high blood pressure;
(4) Current level of interagency coordination.

From this, a statewide high blood pressure control plan will be written and implemented which will include improving the level of communication and cooperation between individuals, agencies, and organizations involved in high blood pressure control activities. An important element in the program was the establishment of the Georgia High Blood Pressure Advisory Council, composed of consumers and providers from all over the state, whose charge is to assist the program staff in accomplishing the goals and objectives of the program. The fifth and final year of FOCUS includes various follow-up studies and an overall evaluation of program effectiveness.

American Heart Association — Georgia Affiliate

One goal of the American Heart Association is to translate the knowledge gained from cardiovascular research into community programs designed to prevent and/or reduce the adverse effects of these diseases on all segments of the population. The Georgia Affiliate supports this goal by supporting community activities specifically related to blood pressure control through:

(1) Local high blood pressure chairmen, reponsible

for increasing community blood pressure awareness with emphasis on high-risk populations and the worksite setting and who provide leadership to the screening of 89,000 Georgians;

(2) The "3R's and HBP," a heart health education program for schools, which trains 300 teachers who instruct 30,000 students representing 127 counties each year;

(3) Continuing public education through all media sources, with emphasis in May at which time approximately 57,000 people are screened, of which 16% are referred and 21% are representative of the high-risk population;

(4) Continuing professional education through the annual Scientific Sessions and special high blood pressure spring conferences. In 1979, the Georgia Affiliate along with the Department of Pediatrics, Emory University, sponsored the first statewide conference on "Pediatric Hypertension: A Reality." In 1980, the Georgia Affiliate and the Department of Human Resources sponsored the first statewide conference on "Mild Hypertension: An Update," a report of findings from the National HDFP 10-year study.

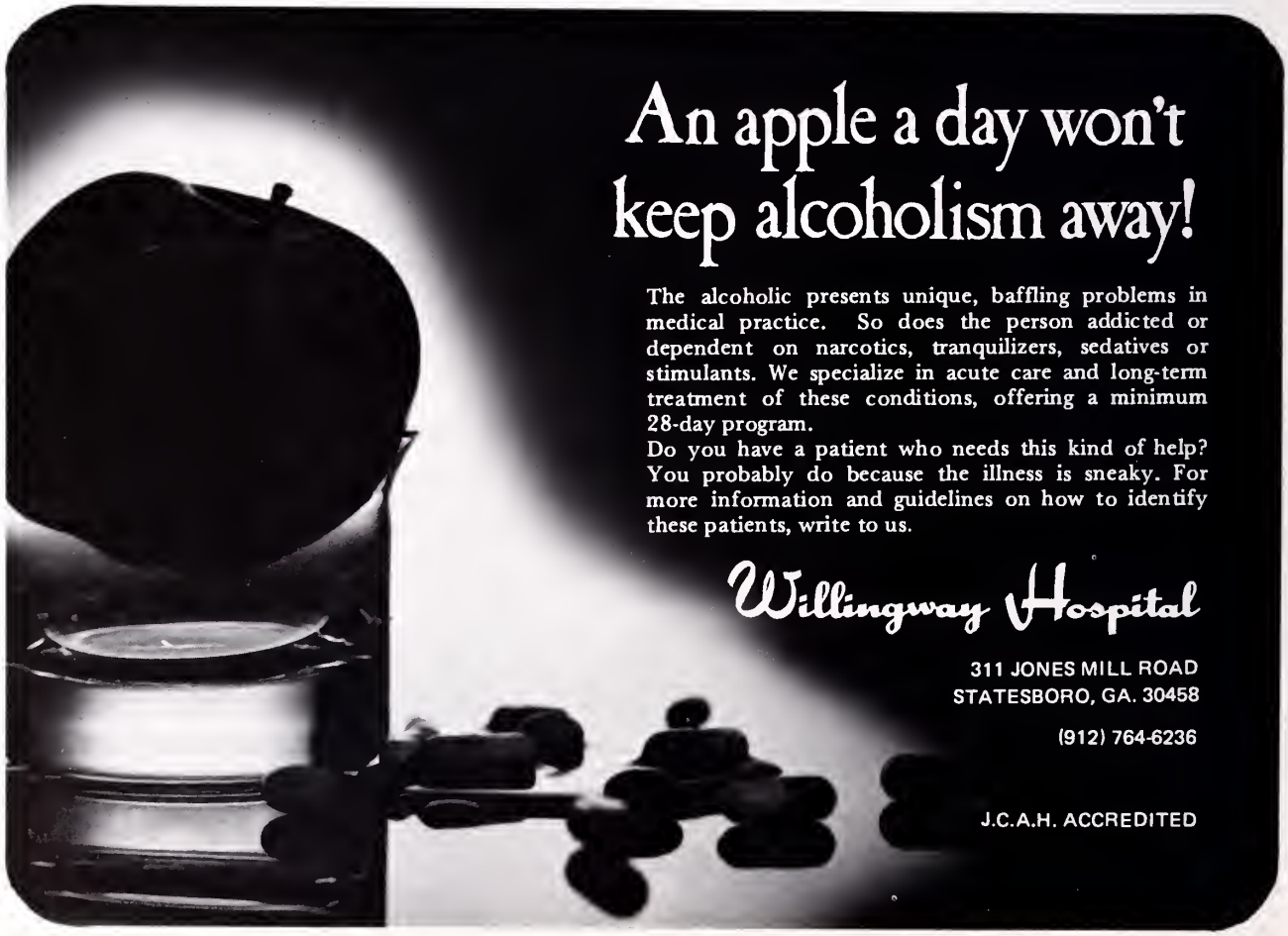
With the recent NHLBI grant awarded Georgia for statewide coordination of HBP activities with the net result of affecting a lowering of diastolic blood pressures and measuring a decrease in associated morbidity and mortality, the main emphasis of the Georgia Affiliate high blood pressure program is to:

(1) Work cooperatively with FOCUS (the NHLBI grant in Georgia administered by the Adult Health Unit, DHR) on developing, conducting, and analyzing a statewide (random sample) physician survey and nurse survey on the current state of the art in high blood pressure detection, diagnosis, management, compliance, and patient education;

(2) Concentrate blood pressure screening efforts on the high-risk, hard-to-reach group through worksite screening and screening of special target populations (white and black males under 50 years of age with less than a high school education);

(3) Emphasize local blood pressure control resource coordination;

(4) Actively promote and conduct professional education specifically related to HBP and associated risks.



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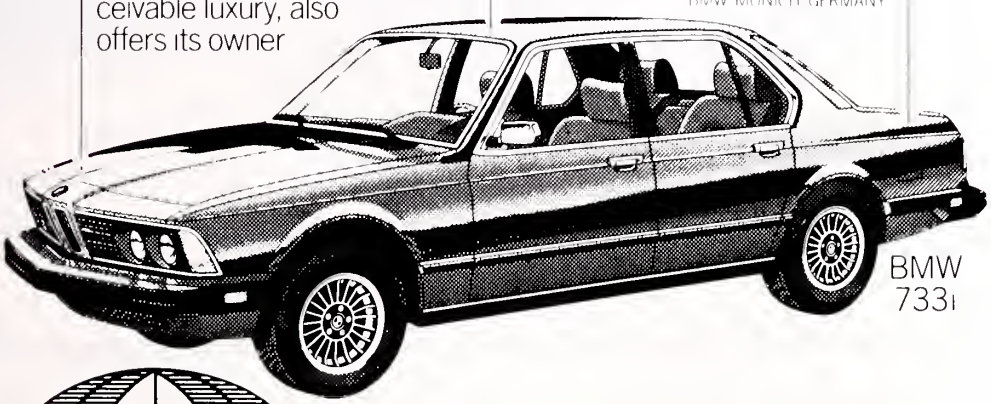
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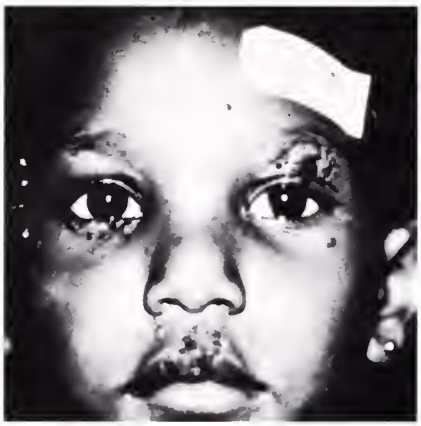
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As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus.*†
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

†The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

WARNING:
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:
Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:
Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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president's letter



Response To Crisis

SUDDENLY, perhaps without warning, three seriously wounded individuals and the President of the United States enter a local emergency room. Routine emergency care procedures are begun. A crowd of over two hundred million people gather "electronically" outside to be instantly and continuously informed of the condition and progress, prognosis and potential complications of those involved. Medical and surgical assessment are smoothly and appropriately carried out, indicated procedures accomplished, and all goes very well indeed.

Meanwhile, highly paid, skilled communicators fill the public's eyes and ears with descriptions and comments, remote "live" reactions of eyewitnesses and family members, and official White House releases. The President's stay in the operating room apparently begins to seem a bit overlong and conjecture begins as to the nature of possible as yet unmentioned problems which may be arising.

A crescendo of concern and speculation builds climatically . . . is the President coming along all right? Is the severely brain-injured Brady alive or dead?

Then, suddenly, the anxious multitudes are brought into a conference room filled with newspeople, and Dr. Dennis O'Leary, whatever his other talents may be, quickly demonstrates his consummate mastery of the art of holding a news conference. His whole appearance and manner is reassuring. He has gathered rapidly as complete an arsenal of factual information as possible and proceeds to outline in considerable detail the President's injury and its treatment in a plain, lucid fashion. He gives helpful background information to the lay audience, without overwhelming them with detail, to emphasize the essentially routine nature of the problem and the simple, logical steps that were taken to repair the injury. Questions are then answered, amplifying certain details in a straightforward, non-condescending manner.

My own overall impression of this whole tragic event is an appreciation of the extreme competency under maximum stressful circumstances of all those who attempted to defend the President from injury and certainly of the medical team involved in his hospital care. I believe many other people share my impression, and I feel Dr. O'Leary's superb communication had a great deal to do with the formation of this positive attitude. I firmly believe American medicine has been positively portrayed and very well served by Dr. O'Leary and that he is to be congratulated. The essence seemed to be almost as if "The President happened to get hurt in the neighborhood, so of course we fixed him right up."

My other impression is that the Academy Award people have failed to seize the obvious opportunity to present an Oscar to the President in the new category . . . Best One-Liners Delivered on the Way to One's Own Operation.

L. Newton Turk III M.D.

L. Newton Turk, III, M.D.
President, M.A.G.

New Members

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Alexander, Susan, Jackson-Banks—ACT—OBG
111 Homer St., Commerce 30529

Aranda, Ricardo J., Floyd-Polk-Chattooga—ACT—OBG
320 W. Ninth St., Rome 30161

Cabaseres, Horatio V., Bibb—N-2—GS
Medical Center of Central Georgia, Macon 31208

Collier, M. Dwayne, Floyd-Polk-Chattooga—ACT—U
302 W. Sixth St., Rome 30161

Duke, Peggy G., MAA—N-2—AN
Anesthesiology Dept., 1364 Clifton Rd., NE, Atlanta 30322

Ferguson, Robert C., Hall—N-2—CD/IM
710 Broad St., SE, Gainesville 30501

Formby, Larry H., Floyd-Polk-Chattooga—ACT—U
302 W. Sixth St., Rome 30161

Goolsby, Louis W., Bibb—I&R—FP
Medical Center of Central Georgia, Macon 31201

Gordon, Lourdes N., MAA—ACT—AN
1681 Tilling Way, Stone Mountain 30087

Gullett, Charles C., MAA—ACT—AM
P.O. Box 20787, Atlanta 30320

Haley, William E., Glynn—ACT—IM
280 Redfern Village, St. Simons Island 31522

Harold, Gregory S., Bibb—I&R
Rte. 3, Box 13-A, Pinewood Dr., Gray 31032

Haynes, Michael S., Richmond—N-2—IM/PUD
820 St. Sebastian Way, Augusta 30910

Herring, Davey, Bibb—I&R—GS
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Jagiella, Waclav J., Wilkes—ACT—GP
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Nezhat, Camran, MAA—N-2—OBG
60 Forest Pl., Atlanta 30328

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Martin Army Hospital, Ft. Benning 31905

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Box 85, Macon 31208

Rogers, Phillip R., DeKalb—N-2—FP
4553 N. Shallowford Rd., Ste. 20-B, Atlanta 30338

Strand, Calvin L., MAA—ACT—PTH
Crawford W. Long Memorial Hospital, Atlanta

Thota, Sindhu H., Glynn—ACT—OPH
520 Ocean Blvd., Room 118-120, St. Simons Island 31522

Williams, Byron R., MAA—N-1—C
25 Prescott St., NE, Atlanta 30365

PERSONALS

First District

Ram Puri, M.D., and **Sudershan Hooda, M.D.,** both from Dublin, have moved their practices to Eatonton and are members of the Putnam General Hospital medical staff.

Second District

Moultrie surgeon, **David Adcock, M.D.,** spoke to the Camilla Rotary Club at their March meeting. His topic was severed digit replacement.

Fifth District

The Anneewakee Treatment Center honored Atlanta physician, **Harold A. Ferris, M.D.,** for his outstanding contributions to the health care of Anneewakee students.

Robert E. Wells, M.D., of Atlanta, recently assumed the presidency of the American Academy of Orthopaedic Surgeons at their 48th annual meeting in Las Vegas.

The Georgia Psychiatric Association presented the Psychiatrist of the Year Award to **August S. Yochem, M.D.,** on Feb. 7 at their semi-annual meeting. Dr. Yochem is Vice Director of Peachtree and Parkwood Mental Health Center and Hospitals.

Seventh District

Evangelio Gonzalez, M.D., of Villa Rica, has joined the medical staff of the Villa Rica City Hospital.

The Walker, Dade, Catoosa Counties Hospital Authority has announced new officers for 1981. MAG members who were elected include **Ralph Greene, M.D.,** of Ft. Oglethorpe, as secretary; and **Charles W. Stephenson, M.D.,** of Ringgold, as treasurer.

Lawrence William Price, M.D., formerly of Columbus, has moved his practice to Villa Rica.

Mrs. Jean Vansant, R.N., widow of the late **Claude V. Vansant, Jr., M.D.,** presented a portrait of her husband to the Douglas General Hospital. Dr. Vansant's portrait will be placed in the hospital lobby and join two other portraits — that of his father, Claude V. Vansant, Sr., M.D., and Floyd W. Morgan, M.D. All three physicians played major roles in the development of medical care in Douglas County.

Eighth District

Blackshear's Chamber of Commerce awarded **Katherine Hendry, M.D.,** the 1981 Community Service Award for her 40 years of service to the county.

Tenth District

Washington pathologist, **Sophia Bamford, M.D.,** was named Rotary Club Citizen of the Year at the annual Ladies' Night and Awards Banquet of the Rotary Club of Washington.

DEATHS

Alphonso R. Sims

Alphonso R. Sims, M.D., 78, died Feb. 23, 1981, of a gunshot wound apparently inflicted as he was cleaning a .45 caliber pistol.

Born in Richland, Dr. Sims received his M.D. degree from Tulane University in 1926 and completed his internship at Charity Hospital. For 2 years he practiced in an Alabama coal mining area. From 1935-50, Dr. Sims and his father, who was also a physician, founded Sims Clinic in Richland. He served as chief-of-staff of Stewart-Webster Hospital from its opening in 1950 until 1968 when he retired as a surgeon to devote his time to office practice.

Dr. Sims was a member of the American Medical Association, the Medical Association of Georgia, and the Randolph-Terrell County Medical Society. He also was a past president of his county medical society and a fellow in the American College of Abdominal Surgeons.

Survivors include his wife, three daughters, eleven grandchildren, and two great-grandchildren.

Robert G. Ferrell, Jr.

Robert G. Ferrell, Jr., M.D., 73, died March 9, 1981. Dr. Farrell, a native of Americus, graduated from the Medical College of Georgia. He was a member of the Bibb County Medical Society, the Medical Association of Georgia, and the American Medical Association.

Survivors include his wife, two daughters, a son, and four grandchildren.

Homer E. Nash

Homer E. Nash, M.D., 93, one of Atlanta's most respected physicians, died March 19, 1981, of heart failure enroute to a meeting of the Atlanta Medical Association.

Born in 1887, Dr. Nash received his M.D. degree from Meharry Medical College in 1910. During World War I, he served as a captain in the U.S. Army from 1917 to 1919. After the war, he returned to Atlanta to practice medicine and subsequently assumed an active role in civic affairs of the city.

Among Dr. Nash's many civic and medical awards, three are particularly outstanding. The Atlanta Medical Association awarded him the 1980 Nash-Carter Award, the highest honor given by that Association. In January, 1980, he was named "Father of Medicine" by Morehouse College, and in the same year the National Medical Association named him General Practitioner of the Year.

Dr. Nash was a member of the National Medical Association, the Georgia State Medical Society, the Medical Association of Georgia, the Atlanta Medical Association, and the Medical Association of Atlanta.

Survivors include his wife, five children, eight grandchildren, and two great-grandchildren.

Composite State Board of Medical Examiners' Disciplinary Actions

AT THE REQUEST of the Composite State Board of Medical Examiners (CSBME) (the "Board") the Medical Association of Georgia has agreed to publish the results of disciplinary actions of the Board as a public service to inform physicians throughout the State of Georgia of the actions taken by the Board.

The disciplinary actions described below constitute the actions taken by the Board and are subject to appeal by the physicians involved to an appropriate superior court pursuant to the terms of the Georgia Administrative Procedure Act.

The following were actions taken in January-March 1981:

Revocation of License

James E. Allgood, M.D. (non-MAG member)
David G. Arien, M.D. (non-MAG member)
Emmanuel Mofu, M.D. (non-MAG member)

Suspension of License

Harold Bickham, M.D. (non-MAG member)
Joseph H. Pritchett, Jr., M.D. (MAG member)

Consent Orders

A. J. Morris, M.D. (MAG member)
C. A. Rankine, M.D. (MAG member, retired)

Surrender of License

Henry A. Braddock, M.D. (non-MAG member)
W. A. Pleasant, M.D. (non-MAG member)



Acute pain is no laughing matter.

The first prescription for the first days of acute pain

Empirin® c̄ Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). Ⓒ III

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c̄ Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c̄ Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with...two tablets of Empirin c̄ Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

Ⓒ III

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg (Warning — may be habit-forming.)

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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TOPICS

Preoperative Management of Cardiac Patients Prior to General Surgery
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Fulton Federal's IRA is designed for you if you are self-employed or employed but not presently covered by a qualified retirement plan.

With IRA (Individual Retirement Account), you can plan for tomorrow by contributing as much as 15% of your compensation (or earned income if you are self-employed) not to surpass $1500 in any one year. IRA allows your savings plus interest to be compounded and tax deferred until retirement or age 59-1/2. Consequently, when you do begin withdrawing money, you will probably be in a lower tax bracket, thus your taxes will be less.

Keogh is designed for you if you are self-employed. With the Keogh retirement plan, your savings plus interest is also compounded and tax sheltered until time of withdrawal. You may deposit 15% of your earned income, not to exceed $7500 in one year.

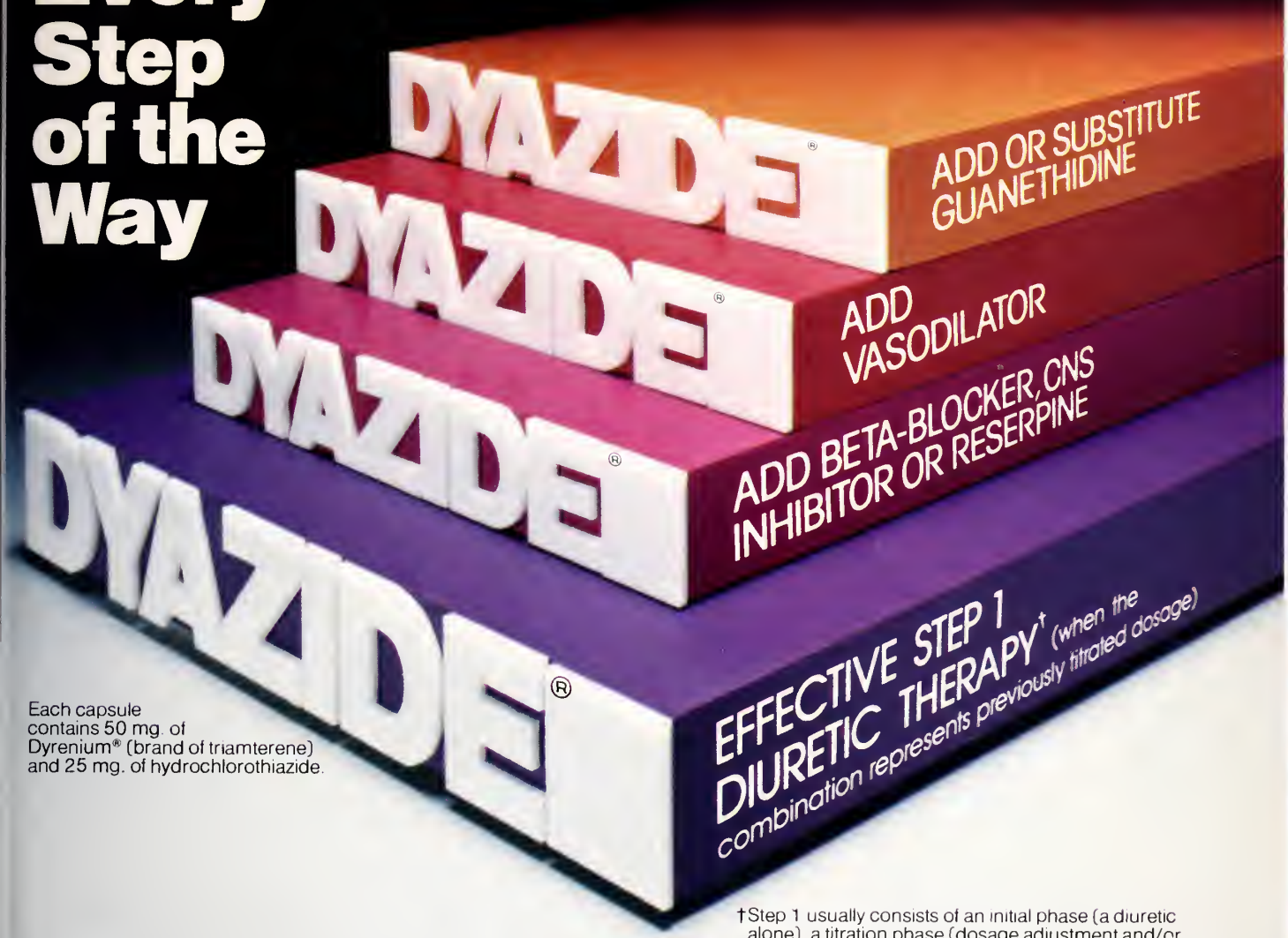
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In Hypertension*...When You Need to Conserve K^+

Every Step of the Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

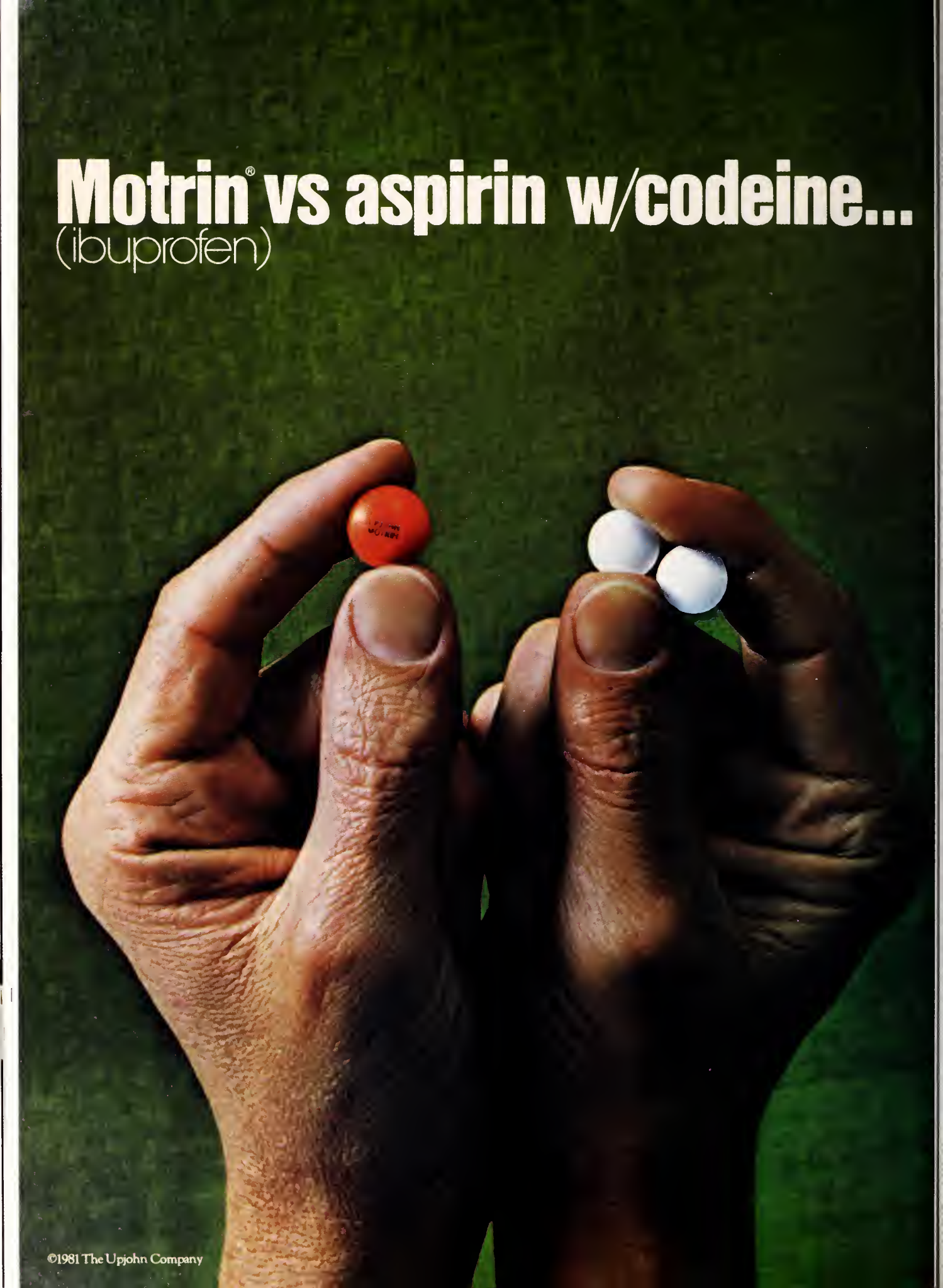
Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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Motrin® vs aspirin w/codeine...
(ibuprofen)

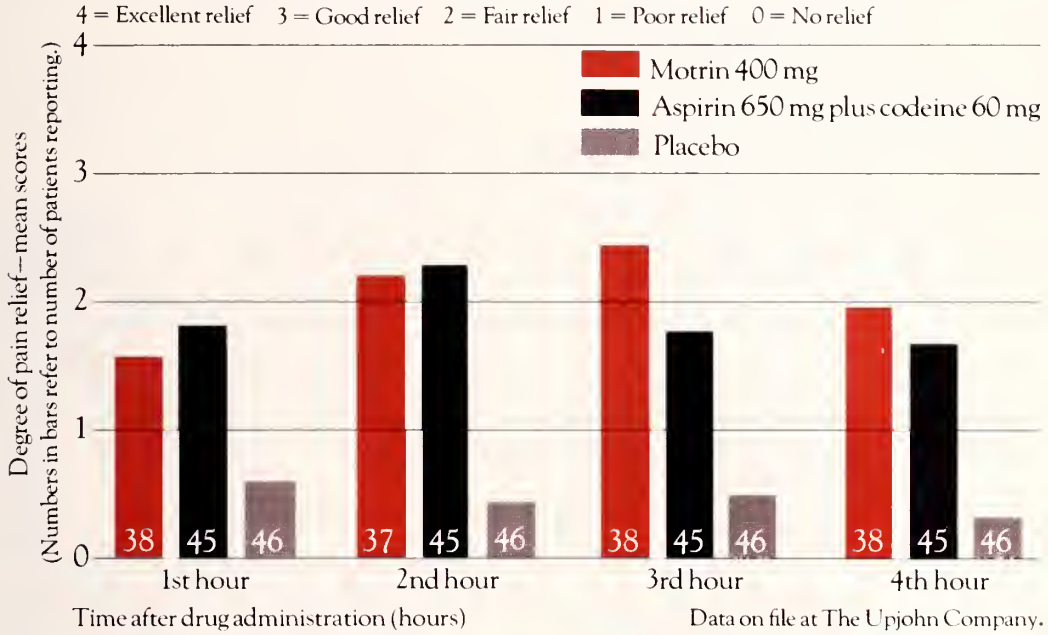


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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination



Data on file at The Upjohn Company.

One tablet q4-6h prn
For relief of mild to moderate pain:

Motrin® 400 mg TABLETS
ibuprofen, Upjohn

• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d.
Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

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Kalamazoo, Michigan 49001 USA

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MARCH 1981

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TAKE A BITE OUT OF CRIME™

A message from the Crime Prevention Coalition, this publication and The Ad Council

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Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/ Roche)℞, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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ADULT PSYCHIATRIC PROGRAM

A plan that focuses on the particular requirements of the patient is drawn up by his or her personal psychiatrist. It includes, in addition to the milieu approach, group, recreational, horticultural and occupational therapy.

CHILD SERVICES

All types of psychiatric and learning disorders are treated with a multi-modality approach at this in-patient unit for children under 13 years of age. Out-patient services and a day-care program are an integral part of this service. All needed schooling is available.

ADOLESCENT PSYCHIATRIC PROGRAM

Includes a state-accredited special education middle and high school for patients ranging in age from 13 to 19 years. Patients participate in a milieu incorporating community identification, frequent interaction with staff members and individual appointments with psychiatrists.

ALCOHOL AND DRUG REHABILITATION PROGRAM

A comprehensive, individualized program of detoxification and rehabilitation is offered the alcohol and drug patient. Each patient works with a therapeutic team in planning treatment, and emphasis is on long-term out-patient follow-up.

MEDICAL SERVICES

A full-time staff of Board certified internists is available to meet the medical needs of all patients.

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Includes EKG, EEG, Isotope and fluoroscopic X-ray studies within the facility.

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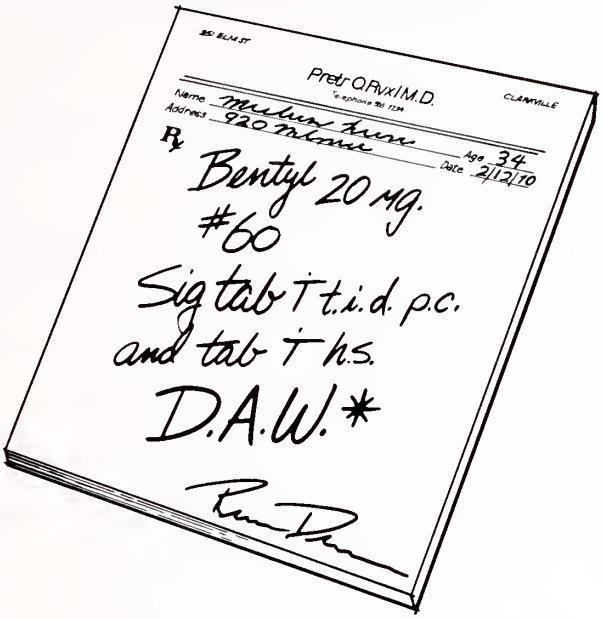
...in the functional bowel/irritable bowel syndrome†

be sure to specify

Bentyl®

(dicyclomine hydrochloride USP)

10 mg. capsules, 20 mg. tablets,
10 mg./5 ml. syrup, 10 mg./ml. injectable



*D.A.W.-Dispense as written

because:

Bentyl passes these tests for product integrity.

- The Bentyl molecule is a product of original Merrell research.
- At Merrell, Bentyl must go through 140 checkpoints/tests from its synthesis through the packaging of the final product.
- Bentyl bioavailability of tablets, capsules, syrup and injectable.
- The bioequivalence of the oral dosage forms permits a choice of tablets, capsules, or syrup that satisfies patient's dosage preferences.
- Pharmacologic effect in the distal colon compared to placebo†† shows how Bentyl affects abnormal motor activity in the irritable colon patient.†

†This drug has been classified "probably" effective for this indication.

Merrell

†† In the experiments that showed significant pharmacologic effect, the dose of Bentyl used was 50 mg. I.M., which is higher than that permitted in the labeling. This dose was deemed justified since the recommended daily dose of injectable Bentyl is 20 mg. (2 ml.) every 4 to 6 hours. Thus, in 8 hours, a patient could receive a total of 60 mg. I.M. and at that time, as a result of the sustained plasma levels from the 20 mg. injections at 0 and 4 hours, might show an even higher plasma level that occurs after a single 50 mg. I.M. dose. Presumably, the same pharmacologic effect would follow. These observations do not constitute evidence of efficacy.

Bentyl®

(dicyclomine hydrochloride USP)
Capsules, Tablets, Syrup, Injection
AVAILABLE ONLY ON PRESCRIPTION
Brief Summary

INDICATIONS
Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:
For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.
For use in the treatment of infant colic (syrup).
Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and/or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.
Use with caution in patients with:
Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.
Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.
Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/ antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.
Usual Dosage
Bentyl 10 mg. capsule and syrup: *Adults:* 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children:* 1 capsule or teaspoonful syrup three or four times daily. *Infants:* ½ teaspoonful syrup three or four times daily. (Dilute with equal volume of water.)
Bentyl 20 mg : *Adults:* 1 tablet three or four times daily.
Bentyl Injection: *Adults:* 2 ml. (20 mg.) every four to six hours intramuscularly only.
NOT FOR INTRAVENOUS USE.

MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of July, 1980

Injectable dosage forms manufactured by
CONNAUGHT LABORATORIES, INC.
Swiftwater, Pennsylvania 18370 or
TAYLOR PHARMACAL COMPANY
Decatur, Illinois 62525 for
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Fort Benning, Columbus, GA
Fort Stewart, Savannah, GA
Redstone Arsenal, Huntsville, AL
Fort McClellan, Anniston, AL
Fort Rucker, Dothan, AL
Fort Jackson, Columbia, SC
Fort Bragg, Fayetteville, NC

Vacancies may vary as physicians arrive and depart but will exist in nearly every speciality at one medical facility or another. To obtain more information and vacancies by speciality please contact the Army Medical Department Personnel Counselor listed below. Be our guest at one of the above medical facilities or any other Army Medical facility.

WRITE OR CALL COLLECT:

MAJ Dennis Leahy, MSC
HQ US Army Forces Command
Fort McPherson, GA 30330
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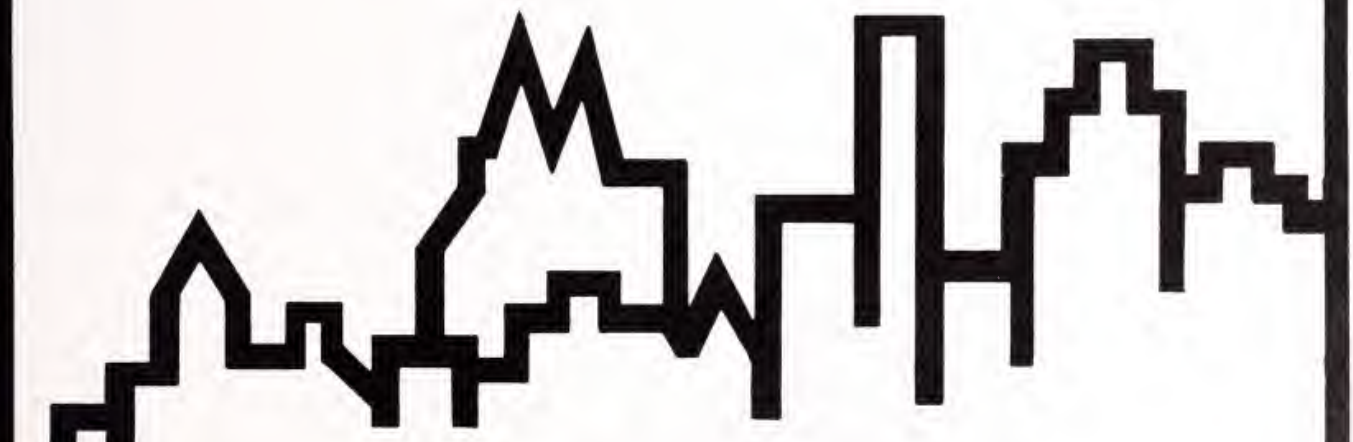
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CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemalytic streptacacci
Branchitis and pneumania caused by S. pneumaniae (farmerly *D. pneumaniae*)
Otitis media caused by S. pneumaniae (farmerly *D. pneumaniae*) and *H. influenzae*
Acute exacerbatian af chranic branchitis caused by *H. influenzae**
*Thaugh clinical improvement has been shawn, bacterialagic cures cannat be expected in all patients with chranic respiratary disease due ta *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Graup A beta-hemalytic streptacacci and staphylacacci, nanpenicillinase praducers.
URINARY TRACT INFECTIONS caused by *E. cali* and *P. mirabilis*. (This drug shauld nat be used in any *E. cali* and *P. mirabilis* infectians ather than urinary tract.)
NOTE: Perfarm cultures and susceptibility tests initially and during treatment ta manitar effectiveness af therapy and susceptibility af bacteria. Therapy may be instituted priar ta results af sensitivity testing.
Contraindications Cantraindicated in individuals with history af an allergic reactian ta penicillins.
Warnings Cyclacillin should anly be prescribed far the indicatians listed herein.
Cyclacillin has less in vitro activity than ather drugs af the ampicillin class. However, clinical trials demanstrated it is efficacious far recammended indications.
Serious and accasional fatal hypersensitivity (anaphylactaid) reactions have been reported in patients an penicillin. Although anaphylaxis is mare frequent fallawing parenteral use, it has accurred in patients an aral penicillins. These reactians are mare apt ta accur in individuals with history af sensitivity ta multiple allergens. There are reparts af patients with history af penicillin hypersensitivity reactians who experienced severe hypersensitivity reactians when treated with a cephalasparin. Befare penicillin therapy, carefully inquire about previous hypersensitivity reactians ta penicillins, cephalasparins and ather allergens. If allergic reactian accurs, discantinue drug and initiate apprapriate therapy. Serious anaphylactaid reactians require immediate emergency treatment with epinephrine. Oxygen, I.V. steraids, airway management, including intubatian, shauld alsa be administered as indicated.
Precautions Pralanged use af antibiatics may pramate avergrawth af nansusceptible arganisms. If superinfectian accurs, take apprapriate measures.
PREGNANCY: Pregnancy Categary B. Repraductian studies perfarmed in mice and rats at dases up ta 10 times the human dase revealed na evidence af impaired fertility ar harm ta the fetus due ta cyclacillin. There are, hawever, na adequate and well-cantralled studies in pregnant wamen. Because animal repraductian studies are nat always predictive af human respanse, use this drug during pregnancy anly if clearly needed.
NURSING MOTHERS: It is nat known whether this drug is excreted in human milk. Because many drugs are, exercise cautian when cyclacillin is given ta a nursing waman.
Adverse Reactions Oral cyclacillin is generally well talerated. As with ather penicillins, untaward sensitivity reactians are likely, particularly in thase wha previausly demanstrated penicillin hypersensitivity ar with history af allergy, asthma, hay fever, ar urticaria. Adverse reactians reparted with cyclacillin: diarrhea (in appraximately 1 aut af 20 patients treated), nausea and vamiting (in appraximately 1 in 50), and skin rash (in appraximately 1 in 60). Isalated instances af headache, dizziness, abdaminal pain, vaginitis, and urticaria have been reparted. (See WARNINGS) Other less frequent adverse reactians which may accur and are reparted with ather penicillins are anemia, thrambacytapenia, thrambacytapenic purpura, leukapenia, neutrapenia and easinaphilia. These reactians are usually reversible an discantinuatian af therapy.
As with ather semisynthetic penicillins, SGOT elevatians have been reparted.
As with antibiatic therapy generally, cantinue treatment at least 48 ta 72 haurs after patient becames asymptamatic ar until bacterial eradicatian is evidenced. In Graup A beta-hemalytic streptacaccal infectians, at least 10 days' treatment is recammended ta guard against risk af rheumatic fever ar glamerulanephritis. In chranic urinary tract infectian, frequent bacterialagic and clinical appraisal is necessary during therapy and passibly far several manths after. Persistent infectian may require treatment far several weeks.
Cyclacillin is nat indicated in children under 2 manths af age.
Patients with Renal Failure Cyclacillin may be safely administered ta patients with reduced renal functian. Due ta pralanged serum half-life, patients with various degrees af renal impairment may require change in dasage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced dases)

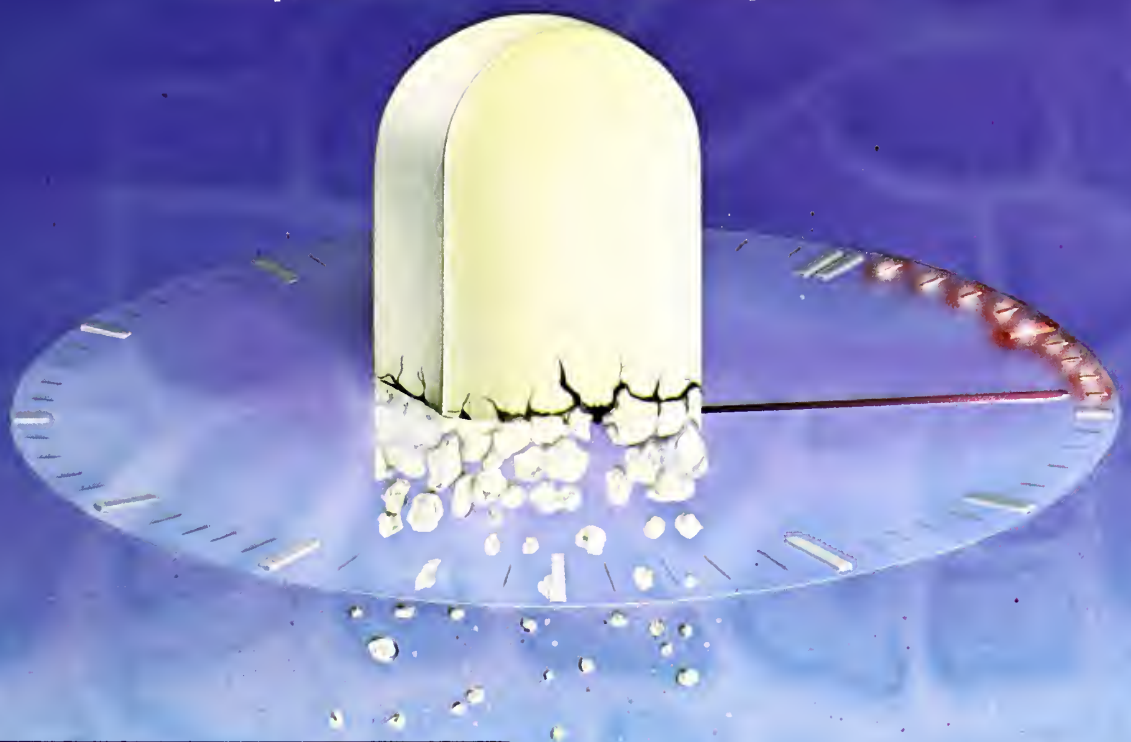
INFECTION	ADULTS	CHILDREN*
Respiratary Tract Tansillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumania		
Mild ar Maderate Infectians	250 mg q.i.d	50 mg/kg/day q.i.d.
Chranic Infectians	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg ta 500 mg q.i.d.†	50 ta 100 mg/kg/day†
Skin & Skin Structures	250 mg ta 500 mg q.i.d †	50 ta 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dasage shauld nat result in a dase higher than that far adults.
†depending an severity

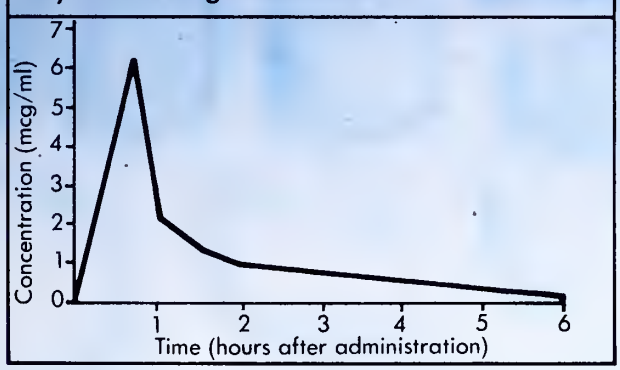
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- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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(cyclacillin)

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JOURNAL
of the medical association of georgia
938 Peachtree Street, NE / Atlanta, Georgia 30309

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MANUSCRIPTS — Articles are accepted for publication on the condition that they are contributed solely in this *Journal*. Manuscripts should be typewritten, double-spaced, and the original and one copy should be submitted. Receipt of manuscripts will be acknowledged and unused manuscripts returned. Used manuscripts will be returned only if requested.

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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

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Classifieds

RATES AND DATA: Space in this section is sold on a per-word basis as follows: **Members**—$10.00 for the first 25 words; $.25 per word for each additional word. **Non-members**—$20.00 for the first 25 words; $.25 per word for each additional word. *Charges are payable in advance*. Copy must be typed and received by the Publisher no later than the 12th of the month preceding publication. Blind box numbers are available at an additional charge of $1.00 per insertion. For more information, contact *Journal* staff at 938 Peachtree St., NE, Atlanta, Ga. 30309, telephone (404) 876-7535. INWATS in Georgia (800) 282-0224.

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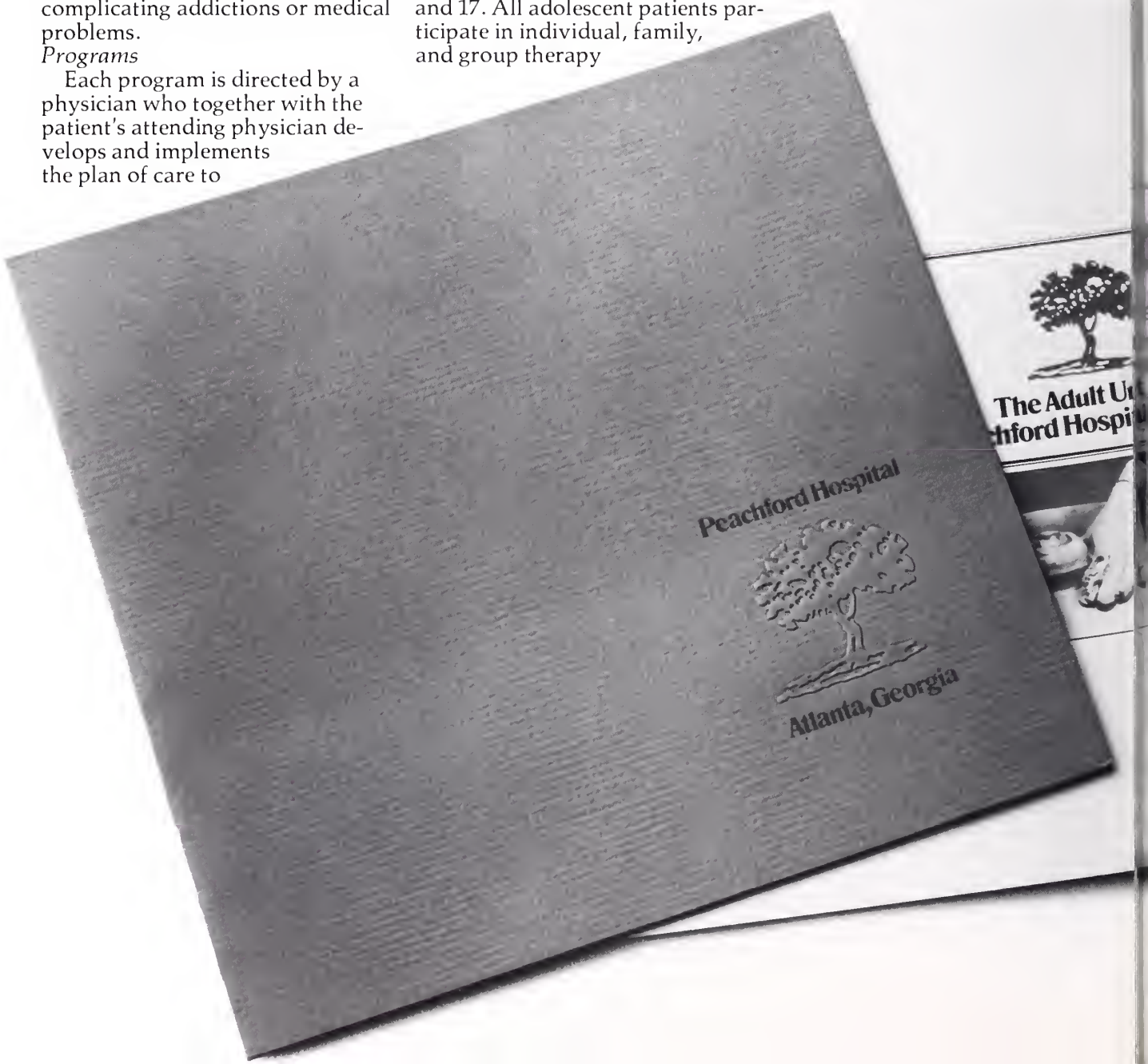
Programs

Each program is directed by a physician who together with the patient's attending physician develops and implements the plan of care to meet the needs of each patient on an individualized basis.

Adult Psychiatric Program — provides a structured therapeutic milieu approach with multiple teams of up to 13 patients each for individuals 18 years of age and older. Individual and group therapies are conducted daily, with activities therapy and clinical social work services scheduled throughout the week.

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Child Psychiatric Program — designed as a 12 patient unit and provides individualized services fo children between the ages of 4 and 12. The structured daily program for all children includes individual



rious problems.

l group therapy sessions, as well ndividualized programs for edu- ion, activities therapy, develop- ntal play, and social services. t, dance, music, occupational, l recreation therapy are vital nponents of the program. rents are involved in family sions and parents' groups. *Addictive Disease Program* — ludes detoxification, intermediate care, and aftercare services based on the philosophy of Alcoholics Anonymous. The treatment program is designed to focus on the total person through participation in educational lectures, group therapy, activities therapy, and family programs. The goal of the program is to teach the addicted individual a manner of living by which he or she may remain free of all addictive substances.

The hospital has an open medical staff including psychiatrists, other medical specialists and allied professionals. Separate committees supervise the children's program, adolescent program, adult psychiatric program and the alcohol and drug abuse unit.

The professional staff consists of nurses, social workers, recreational therapists, occupational therapists, art therapists, music therapists, dance therapists, teachers and counselors.

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Peachford Hospital is owned by Charter Medical Corporation, Macon, Georgia. Each service is fully accredited by the Joint Commission on the Accreditation of Hospitals.

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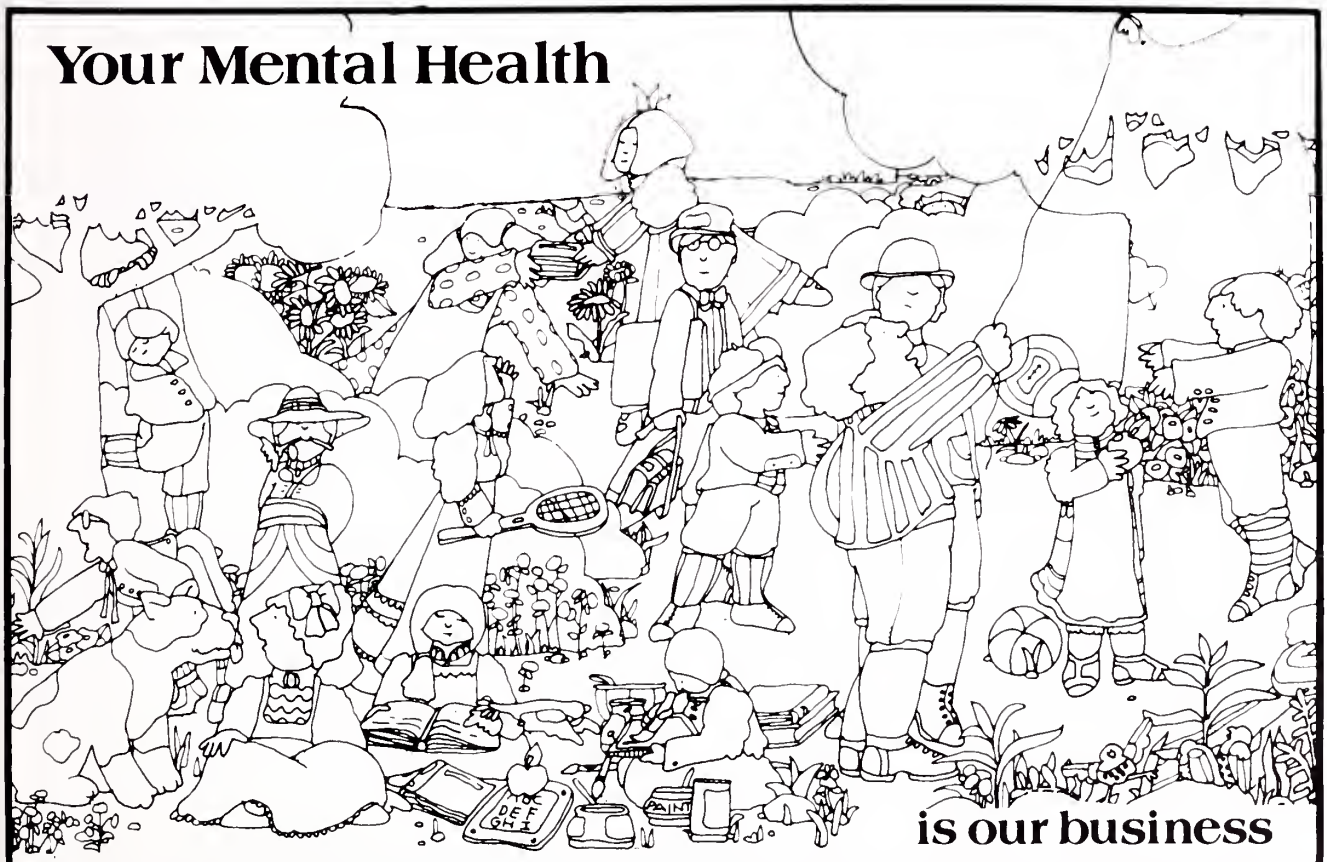


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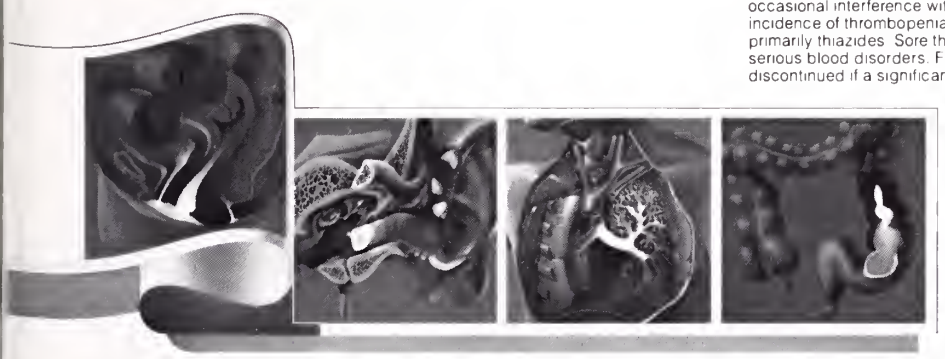
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Michael A. Haberman, M.D.
Medical Director, Psychiatry

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Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



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in acute otitis media in children...
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faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae.* To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

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Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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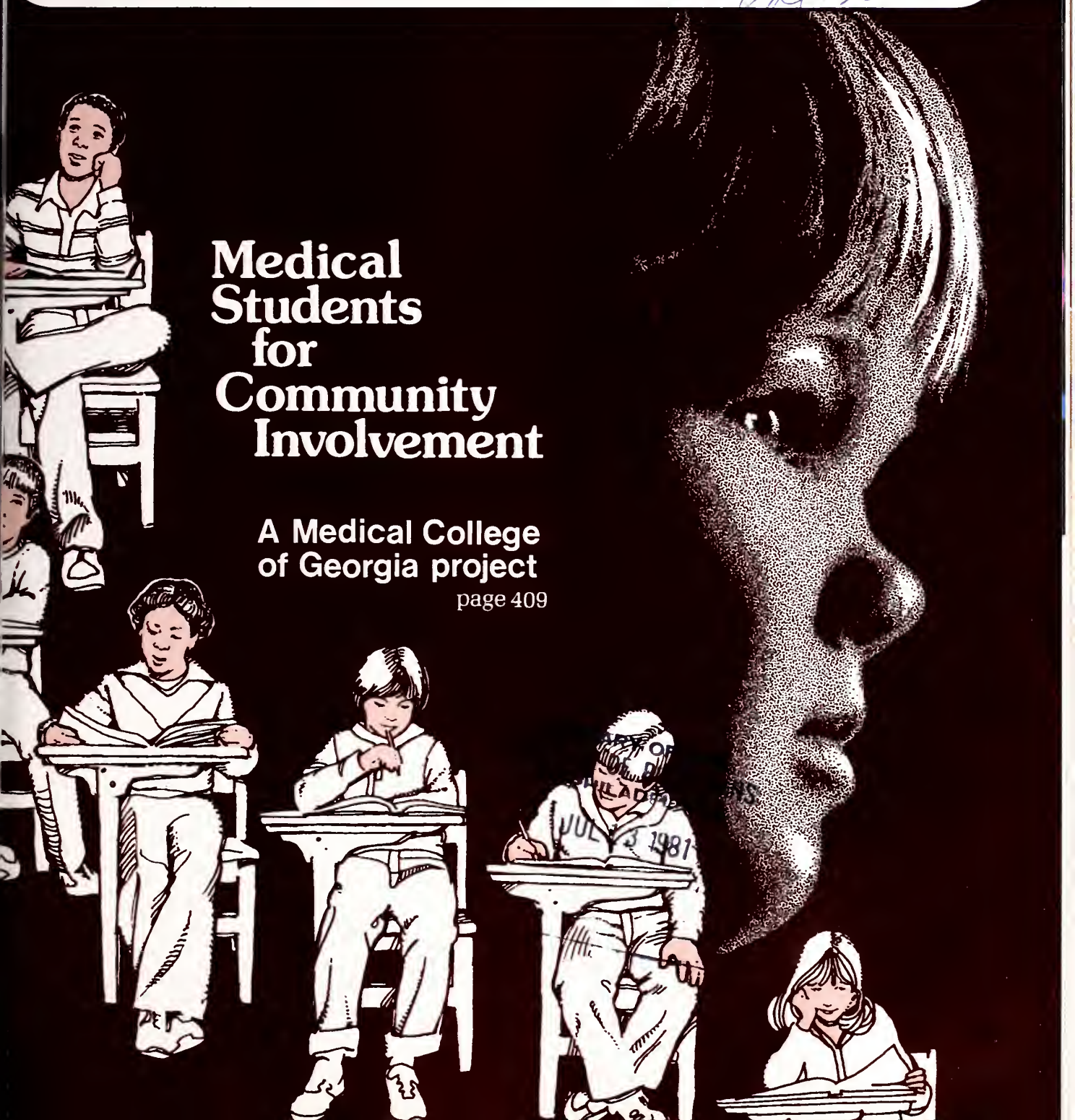
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Please see previous page for summary of product information.

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MDS

vol 70 #6



Medical Students for Community Involvement

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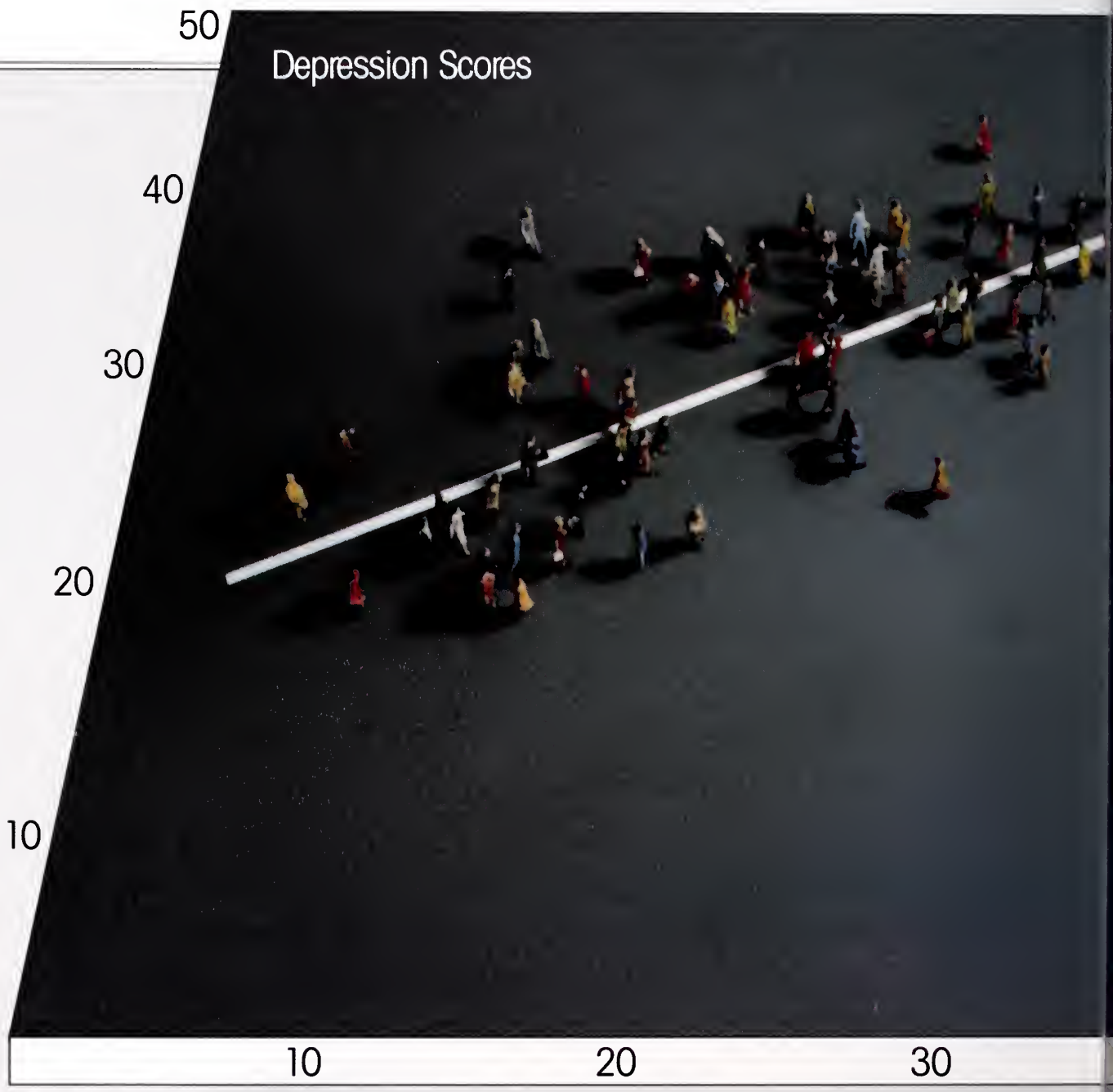
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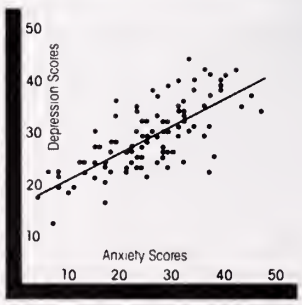
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THE COVER

Our cover this month highlights a unique community project sponsored by the Medical College of Georgia that benefited both the medical students involved as instructors and the elementary students who were taught. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crafts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Clagharn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neuralagical Effects of Antipsychatic Drugs: Tardive dyskinesia, summary of a task force repart of the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al:* A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61:*217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male; breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

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MEDICAL MEETING CALENDAR

JUNE

22-26—*Palm Beach, FL;* **13TH FAMILY PRACTICE REVIEW;** Contact: Bill Rockwood, Box J-223, J. Hillis Miller Health Ctr., Gainesville, FL 32610.

25-27—*Hilton Head Island, SC;* **CLINICALCARDIOLOGY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

28-July 3—*Washington, D.C.;* **AMERICAN PHYSICAL THERAPY ASSOCIATION MEETING;** Contact: Bonnie Polvinale, 1156 Fifteenth St., NW, Ste. 500, Washington, D.C. 20005.

29-July 1—*Kiawah Island, SC;* **HIGH-RISK OBSTETRICS;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

JULY

5-9—*Hilton Head Island, SC;* **NUCLEAR CARDIOLOGY FOR THE PRACTICING PHYSICIAN;** Category 1 credit; Contact: Jagmeet S. Soin, M.D., Program Director, Div. of Nuclear Medicine, Medical College of Wisconsin, 8700 W. Wisconsin Ave., Milwaukee, WI 53226. PH:404/257-5968.

13-17—*Atlanta;* **TAXES AND INVESTMENTS;** Category 1 credit; Contact: Dr. Gerald T. Chambers, Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

16-18—*Kiawah Island, SC;* **RECENT ADVANCES IN INTERNAL MEDICINE;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

19-24—*Asheville, NC;* **SOUTHERN OB/GYN SEMINAR;** Contact: Dr. George Schneider, Southern Ob/Gyn Seminar, Inc., Ochsner Clinic, 1514 Jefferson Hwy., New Orleans, LA 70121. PH:504/838-4000.

22-25—*Hilton Head Island, SC;* **FOURTH ANNUAL SYMPOSIUM ON CONTEMPORARY CLINICAL NEUROLOGY;** Category 1 credit; Contact: Div. of CME, Vanderbilt Sch. of Med., Nashville, TN 37232. PH:615/322-2716.

27-29—*Kiawah Island, SC;* **PEDIATRICS;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

29-August 8—*The Caribbean;* **CRUISE CONFERENCE ON LEGAL-MEDICAL ISSUES** (Sponsored by the American College of Legal Medicine); Category 1 credit; Contact: International Conferences, 189 Lodge Ave., Huntington Station, New York 11746. PH:516/549-0869.

31-August—*Vail, CO;* **EAR, NOSE, AND THROAT FOR THE FAMILY PHYSICIAN;** Contact: E.N.T. Symposium, 950 E. Harvard, Ste. 500, Denver, CO 80210. PH:303/744-1961.

AUGUST

3-7—*Hilton Head Island, SC;* **YOUR PRACTICE, YOUR MONEY, YOUR FAMILY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

16-22—*Atlanta;* **RECENT ADVANCES IN INTERNAL MEDICINE AND INTERNAL MEDICINE BOARD REVIEW;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 69 Butler St., SE, Atlanta 30303. PH:404/588-3534.

29-30—*Callaway Gardens;* **JOINT INTERIM MEETING OF THE GEORGIA AND ALABAMA SOCIETIES OF ANESTHESIOLOGISTS;** Contact: C. F. Johnson, Jr., M.D., Ga. Society of Anesthesiologists, MCG, Augusta 30912. PH:404/828-3871.

SEPTEMBER

9-11—*Atlanta;* **UPDATE IN CARDIOLOGY — CARDIOLOGY BOARD REVIEW PROGRAM;** Contact: Registration Secretary, Extramural Programs Dept., Amer. College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20014. PH:301/897-5400.

19-25—*Warwickshire, England;* **RADIOLOGY IN STRATFORD-ON-AVON** (Sponsored by the University of Connecticut); Contact: D. Beatty Crawford, Dept. of Radiology, Univ. of Connecticut Health Ctr., Farmington, CT 06032.

20-24—*New Orleans, LA;* **AMERICAN ACADEMY OF OTOLARYNGOLOGY MEETING;** Contact: Wesley Bradley, M.D., Amer. Academy of Otolaryngology, 15 2nd St., SW, Rochester, MN 55901. PH:507/288-7444.

23-25—*Savannah;* **NEONATOLOGY;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

25-27—*Savannah;* **CONTROVERSIES IN CARDIOLOGY;** Contact: Amer. Heart Assoc., Ga. Affiliate, Broadview Plaza, Level C, 2581 Piedmont Rd., NE, P.O. Box 13589, Atlanta 30324.

28-30—*Augusta;* **CRITICAL CARE NURSING;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

WE WANT TO SERVE YOU BETTER!

Although we receive many notices for excellent continuing education meetings, all too often the information is received too late for timely inclusion in our Medical Meeting Calendar. In order for *your* meeting to be included, please send us the necessary information *two months* in advance of the issue in which you want it to appear. For example: for the August issue, copy is due by June 20; for the September issue, copy is due by July 20, etc. Mail to: Stephen Davis, Director of Education, MAG, 938 Peachtree St., NE, Atlanta, GA 30309.

Letters to the Editor . . .

Intervertebral Disc Disease— A Reader Responds

Dear Sir:

I take serious issue with Dr. Tindall's otherwise fine article in his comments concerning electromyography in the evaluation of lumbar intervertebral disc disease which was published in the April issue of the *Journal of the Medical Association of Georgia*. As even a casual glance at the pertinent literature shows, electrodiagnostic evaluation of these patients can provide information complementary, comparable, and in some circumstances, superior to, myelography.

A problem exists in the State of Georgia in that inadequately trained persons, many of them not physicians, are performing electromyography and nerve conduction studies. These individuals produce inferior quality work and have given electrodiagnosis a bad name. Perhaps Dr. Tindall is basing his experience on such poorly performed studies.

I invite Dr. Tindall to visit our laboratory and personally peruse our several thousand cases of well-studied, lumbosacral disc disease, and after he's done, let him make up his own mind about the value of electromyography and nerve conduction studies.

Being a full-time electromyographer who finds his field fascinating, and being one who has invested years in the pursuit of this specialty, I bristle at being covered with the same cloth as the inadequately trained.

Sincerely,
Thomas R. Swift, M.D.
Professor of Neurology
Director, Electromyography Laboratory
Medical College of Georgia
Augusta, GA 30912

Secretary Schweiker Responds to March Editorial

Dear Sir:

I read with great interest the editorial by William A. Fickling, Jr., in the March edition of your publication.

The Administration is committed to developing health financing and system reforms which promote competition in the health care market and remedy the distorted incentives which now exist in the system. Over the coming months, the Department of Health and Human Services will be examining these options in detail in the development of a legislative proposal.

A competitive market will encourage innovation and appropriate reimbursement for all kinds of health care services. I applaud Mr. Fickling and the *Journal of the Medical Association of Georgia* for emphasizing the benefits of competition to the medical community.

We appreciate your support of our efforts.

Sincerely,
Richard S. Schweiker
Secretary
U.S. Department of Health and Human Services

Incidental Intelligence . . .

MAG Science Awards to High School Students

The MAG has honored two state high school students for their exhibits in the medicine and health category at this year's Georgia Science and Engineering Fair, held April 9-11 at the University of Georgia. The Medical Association annually provides awards for several projects deemed by the judges as exemplary in the area of medical science.

Sedrick Gardner of George High School, Atlanta, was awarded a first-place $100 savings bond for "The Effects of Gonadectomy on the Recovery and Physical Measurements of Hymenolepsis diminuta in Rats." A second-prize $50 bond was presented to Lizabeth Humphrey, Lakeside High School, DeKalb County, for "Cells in the Cerebral Cortex and Cerebellum of a Rat That Send Their Axons to the Red Nucleus in the Brainstem." Stephen Davis, MAG's Director of Education made the presentations.



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a women of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE. Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which if it occurs usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Menegement of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVEROOSAGE: SYMPTOMS. The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphen, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237 2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Wyeth Laboratories
Philadelphia, Pa. 19101

K^+ chLOride in a waxy maTRIX

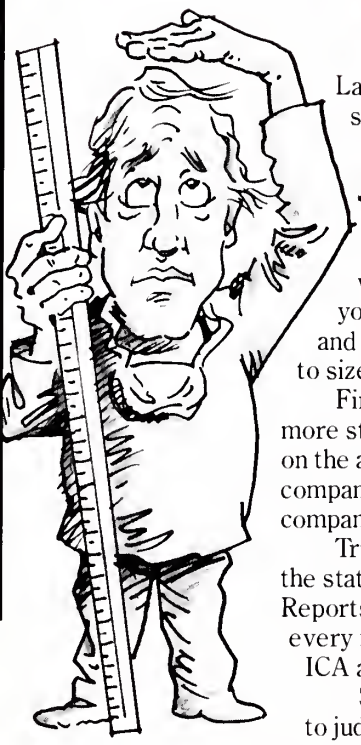
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Mead Johnson
PHARMACEUTICAL DIVISION

MYTHS, HALI
FINALLY THI
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Lately, a great deal of misinformation has been circulated on the subject of professional liability insurance. At ICA we think it's time you got the facts.

JUDGING AN INSURANCE COMPANY BY ITS SIZE IS LIKE CHOOSING A DOCTOR BY HIS HEIGHT.

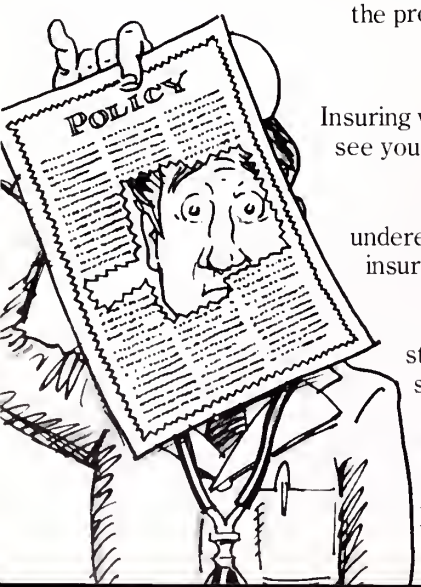
Big is not automatically better. Contrary to what large insurance companies would like you to believe, financial stability, experience, and quality coverage are totally unrelated to size.

First, greater size does not make a company more stable. Insurance companies are regulated on the amount of risk they may assume. A large company's ratio of risk to assets is identical to a small company's.

True measure of a company's stability comes from the state regulatory boards and "Best's Insurance Reports." ICA has met the rigid state requirements in every market where we've applied. And "Best's" has given ICA an exceptionally good policyholders' rating.

So don't be fooled by big boasts. There are better ways to judge a company. Look for experience. But make sure it's experience that counts. A huge company's years devoted to car and accident insurance won't help. Medical malpractice insurance is totally different.

At ICA we know. Professional liability is our field. Over the years we have consistently offered the strongest possible benefits combined with the highest standards for the professional handling of claims.



HOW A TORNADO IN TULSA CAN SEND YOUR MALPRACTICE RATES THROUGH THE ROOF.

Insuring with a large company has its hazards. Like tornados or floods. You see your rates may not be set just by your coverage. When a big company has a big loss, *all* their policies help pay.

Higher rates happen another way, too. Many companies greatly underestimated the cost of writing malpractice insurance in 1975. If you're insured with them today, you're paying for their mistake with higher rates as they try to catch up.

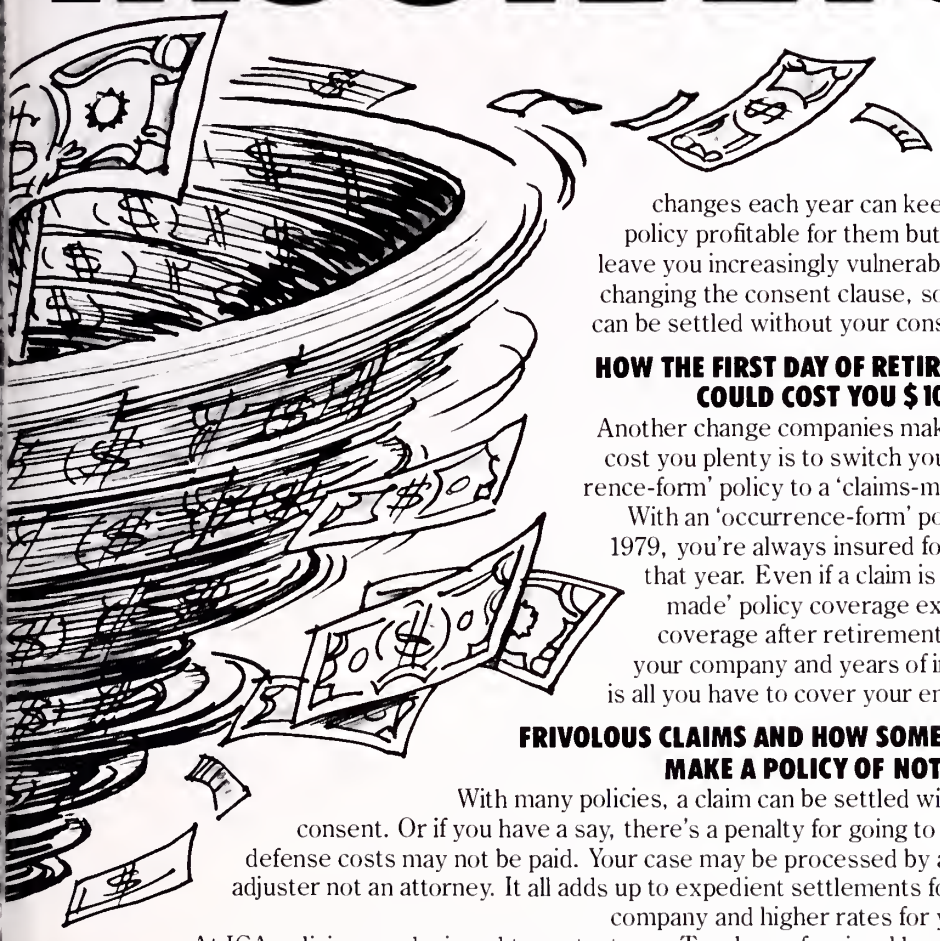
At ICA our rates reflect true costs. We even set rates state by state. So you don't pay for another state's higher risk history. Our strong handling of frivolous claims also helps keep costs down.

But don't judge a policy by rates alone.

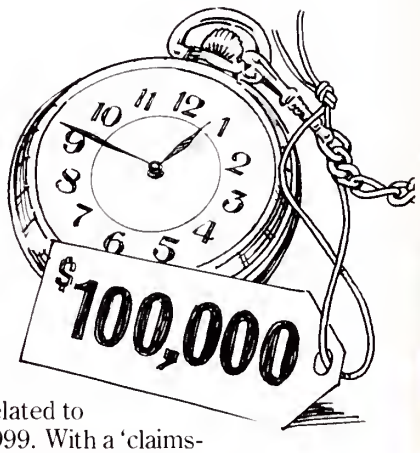
HOW RENEWING THE VERY SAME POLICY COULD BE GIVING YOU VERY DIFFERENT BENEFITS.

Do your rates stay the same while your benefits shrink? At some companies one or two word

TRUTHS, AND ACTS ABOUT INSURANCE.



changes each year can keep a policy profitable for them but can leave you increasingly vulnerable. Like changing the consent clause, so a claim can be settled without your consent.

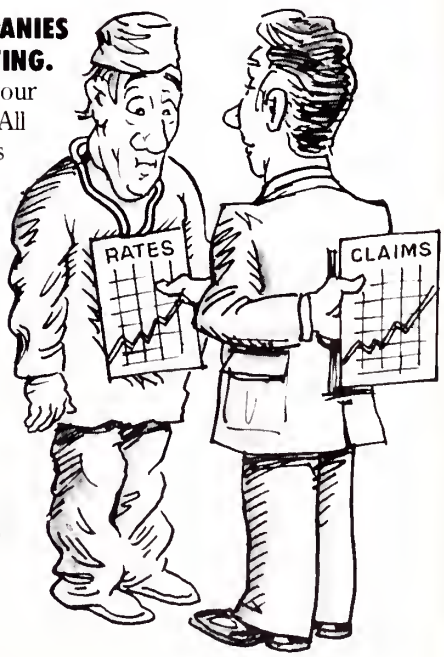


HOW THE FIRST DAY OF RETIREMENT COULD COST YOU $100,000.

Another change companies make that can cost you plenty is to switch your 'occurrence-form' policy to a 'claims-made' one. With an 'occurrence-form' policy in say 1979, you're always insured for claims related to that year. Even if a claim is made in 1999. With a 'claims-made' policy coverage expires completely if you fail to renew. To keep coverage after retirement you may have to pay an exorbitant fee set by your company and years of inflation. And the limited coverage it buys you is all you have to cover your entire career.

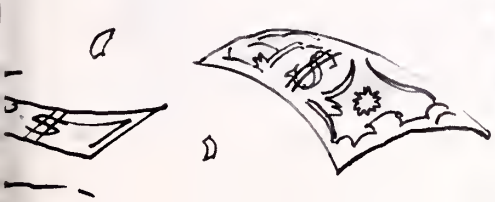
FRIVOLOUS CLAIMS AND HOW SOME COMPANIES MAKE A POLICY OF NOT FIGHTING.

With many policies, a claim can be settled without your consent. Or if you have a say, there's a penalty for going to court. All defense costs may not be paid. Your case may be processed by a claims adjuster not an attorney. It all adds up to expedient settlements for the company and higher rates for you.



At ICA policies are designed to protect you. Tough, professional handling of claims guards your reputation and helps keep costs down. Ours and yours. At ICA we can offer what others can not. Because we are a doctor and attorney owned company that specializes solely in professional liability insurance. Our background and dedication to this one field have allowed us to both know its needs and know how to meet them.

For more facts, contact: Insurance Corporation of America, ICA Center, 4295 San Felipe, Box 56308, Houston, Texas 77027. 1-800-231-2615. In Texas 1-800-392-9702.



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JOURNAL
of the medical association of
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Students for Community Involvement — A Medical School Project

LYNNE S. WILCOX, M.D., PATRICIA A. TEAFORD, M.D., MAURICE LEVY, ED.D., *and* WILLIAM B. STRONG, M.D., *Augusta**

ATHEROSCLEROSIS is recognized today as a major cause of death in the United States and most other industrialized countries. Indeed, the majority of American adults will eventually be fatally affected by a myocardial infarction, a cerebrovascular accident, or other manifestation of this disease. Billions of dollars and hundreds of thousands of physician hours are expended each year for the care of its victims. Yet this effort is essentially stop-gap. Medicine's best promises to a post-infarction patient are for a "few more years" of life, often accompanied and limited by major changes in behavior.

A group of medical students and faculty at the Medical College of Georgia (MCG) decided to begin addressing the origin, rather than the end stages, of this arterial process. They formed the Students for Community Involvement (SCI), a unique organization whose purpose was to teach the pediatric population of Augusta the known information on atherosclerosis and its risk factors.

It has long been recognized that an ounce of prevention is worth a pound of cure. This becomes of paramount importance for the incurable disease of atherosclerosis. By encouraging children to develop and practice behavior that reduces the risk factors of atherosclerosis, the SCI worked to prevent or retard the development and reduce the severity of this disease for these children as they reach maturity.

* Dr. Wilcox is a family practice resident, Dr. Teaford is a pediatrics resident, Mr. Levy is a professor of Educational Research, and Director, Division of Educational Research and Development, and Dr. Strong is a Charbonnier professor of pediatrics, and Director, Section of Pediatric Cardiology, Division of Pediatrics, Medical College of Georgia. Send reprint requests to Dr. Wilcox at 2658 Tredway Dr., Macon, Ga 31211.

Methods and Materials

The student organization was formed in the fall of 1979 by a group of freshmen and sophomore medical students who became interested in community health education. They enlisted the aid of several faculty members and a few senior medical students, all of whom had a special concern for preventive cardiology. The faculty members were from community health, medical education, and pediatric cardiology programs. The student volunteers were from a variety of backgrounds and included a swim team coach, high school teacher, marathon runner, health education professor, and former amateur wrestler. This multiplicity of talent was a rich resource for the program the participants eventually designed.

The medical students chose to create presentations on heart disease for sixth-grade elementary students in Richmond County, Georgia. (Hereafter in this paper the sixth-grade pupils will be referred to as "the children" to distinguish them from the students of medicine.) The orientation would be toward primary prevention of the atherosclerotic process by encouraging the children to voluntarily reduce their risk factors. The information was organized into four topics:

1. Natural History — the natural history of atherosclerosis, including a brief review of the circulatory system and an introduction to the risk factors of atherosclerosis.
2. Exercise — a description of what physical activities are most useful for cardiovascular tone and a

12-minute run to allow the children to evaluate their own exercise tolerance.
3. Smoking — a discussion of how the pulmonary and cardiovascular systems are affected by the smoking habit.
4. Nutrition — a review of the benefits of good nutrition and the advantages of reducing the intake of salt, cholesterol, saturated fat, and unnecessary calories.

The faculty designed a 10-hour curriculum for the medical students that included the basic guidelines for educational presentations and an introduction to the pathology of atherosclerosis for the freshmen students. This voluntary training began in the late fall and continued through the winter of the 1979-80 academic year. Many participants also attended the Annual Preventive Cardiology Lecture Series sponsored by the MCG Section of Pediatric Cardiology of the Department of Pediatrics.

After this initial preparation, the students divided into committees to further research and develop the four topics listed above. The medical students designed a multimedia approach to illustrate their points of discussion for the children. Among the educational aids developed were:

a) "Henry Hemoglobin" — a cartoon character created to describe the pathway of blood through the circulatory system and the functions of the blood. This was a slide presentation.
b) "Your Arteries" — four cardboard cut-outs of arterial cross sections demonstrating the stages of atherosclerosis.
c) Multiple posters including illustrations of the advertising approach to smoking, lists of the major and minor risk factors of atherosclerosis, a list of atherosclerotic complications, a diagram of the circulatory system, and a graph comparing the death rates of heart disease and cancer in the U.S.
d) Preserved autopsy specimens of atherosclerotic hearts, aortas, and arteries, and emphysematous lungs. This allowed the children to view firsthand the ravages of atherosclerosis.
e) A "Smoking Machine" which traps smoke in a filter to simulate lung deposits.
f) A slide presentation describing foods high in cholesterol, saturated fats, simple sugars, and sodium.
g) A pulse diary kept by the children to demonstrate the adaptation of their healthy cardiovascular systems to varying degrees of activity.

The Richmond County Board of Education was contacted and meetings with the public school principals were held to describe the SCI objectives. Several Board members attended an SCI conference to hear presentations and meet the student members. With the cooperation of the curriculum director of the Richmond County School System, an inservice program was held for the elementary teachers to acquaint them with the SCI objectives. The medical students formed teams to give three, 1-hour sessions covering the four topics. They began presenting sessions to the children in the spring of 1980.

Results

Twenty-seven medical students participated in the SCI program. They gave a total of 53 hours of presentations in 15 schools in Richmond County. A total of 1,610 elementary school children participated in the program, learning the complications of atherosclerosis and the methods of reducing its risk factors.

The children demonstrated a strong interest in the discussions. They were intrigued by the pathologic mounts of organs illustrating the progression of atherosclerosis. They were also impressed with the 12-minute run for exercise tolerance evaluation — an activity different from their usual physical education curriculum. Most of the children acknowledged friends or relatives who had suffered a "stroke" or "heart attack." Because of these personal experiences, the sixth graders were aware of the serious implications of atherosclerosis and were therefore concerned about the presence of risk factors in their own lives. Their questions were often surprisingly detailed and sophisticated, covering topics ranging from the possible reversal of established atherosclerotic deposits to the major complications of juvenile diabetes.

An interesting account of a unique program to teach the pediatric population of Augusta about atherosclerosis and its risk factors.

The medical students were enthusiastic about their own experiences. At the end of the spring presentations, a poll of the medical students indicated that the participants unanimously agreed the project should be continued. Expressing their reasons for involvement in the project, they listed some of their own beneficial outcomes as including:

—forming personal patterns of worthwhile community involvement
—gaining practical experience in the presentation of health-oriented subjects
—developing an interest in preventive medicine
—adding to personal knowledge of a specific area of cardiology
—sharing in an enjoyable and satisfying project with fellow students and concerned faculty members.

Discussion

It is now recognized that the process of atherosclerosis is established by late adolescence. The behavior which affects its development — smoking, nutrition, exercise, emotional stress — has frequently become habitual at this age. Education concerning the significance of atherosclerotic risk factors should reach children as early in their lives as possible to accomplish primary prevention or retardation of the pathology of this disease. Furthermore, experience shows that it is easier to develop good health habits initially as a child than to alter long-term activity patterns as an adult. Thus, it becomes doubly important to encourage enlightened nutrition, aerobic exercise, and smoking abstinence in the pediatric population. These measures reduce the risk factors for atherosclerosis with the possibility of postponing the appearance of overt disease when these children reach adulthood.

The children's questions were often surprisingly detailed and sophisticated, covering topics ranging from the possible reversal of established atherosclerotic deposits to the major complications of juvenile diabetes.

The SCI project introduces children to the dangers of atherosclerosis. However, it represents only three hours of presentation in an entire school year. Continuous discussions of the various aspects of this disease are important because it reinforces the children's understanding of the significance of risk factor reduction behavior as well as the contribution to disease of factors which cannot be controlled, such as family history. In light of this concern, it is interesting to examine another program which is being conducted in selected fourth-grade classes in Muscogee County, Georgia. The Health Improvement Program (HIP) was begun in eight schools in Columbus in the fall of 1979. This curriculum places a major responsibility on the elementary teacher, who works with the same group of children throughout the school day and is responsible for their mental and physical activity.

The design calls for the continued reinforcement of information and behavior related to understanding the cardiovascular system and retarding the development of atherosclerosis. These ideas are emphasized in the classroom, the school cafeteria, and the playground, throughout the school year. The liaison with the school food service is particularly significant because it allows a practical demonstration of the nutrition described to the children in the classroom. Health screening was conducted at the beginning of the academic year and was repeated in the spring to assess whether students achieved an improvement in physical condition. As of this writing, the final results are not yet available, but preliminary evidence suggests the HIP curriculum has measurably affected the children's lifestyles.

It should be noted that children are not the only group educated in programs such as those developed by the SCI or HIP. The instructors — elementary school teachers in the HIP curriculum and medical students in the SCI project — also gain a greater knowledge of atherosclerosis and its risk factors. While these people are past the optimum age for primary prevention, they are still likely to benefit from risk factor reduction. This is also true for the children's families, school administrators, and others who will eventually hear discussion of the information presented in the classroom.

There are also other positive aspects to the SCI activity. At the completion of the spring 1980 project, the medical student participants were asked to describe what they had experienced in working with the program. It is appropriate to discuss the evaluation of these students.

The freshmen and sophomore medical students reported that they appreciated the opportunity for an active involvement that utilized their newly acquired medical knowledge. The classroom years of medical education often allow only a rather passive role for the student. These physicians-in-training were able to begin using the information gained from their medical courses even before entering the clinical years of medical school. It seems probable that such experiences would allow the development of professional confidence that might ease the sometimes traumatic transition from the classroom to the hospital ward.

All the medical students agreed that participation in SCI improved their communication skills. They were able to work with other students and medical faculty to design original classroom presentations. They learned how to express complex medical processes in a fashion that school children could understand, and how to "think on their feet" to answer novel questions posed by the children. The medical students cooperated with elementary school educators and learned to recognize professional talent outside the medical field. Thus, the SCI members were able to develop abilities that will positively affect their future relationships with their colleagues and their patients, as well as their understanding of special-interest groups they will encounter in their careers.

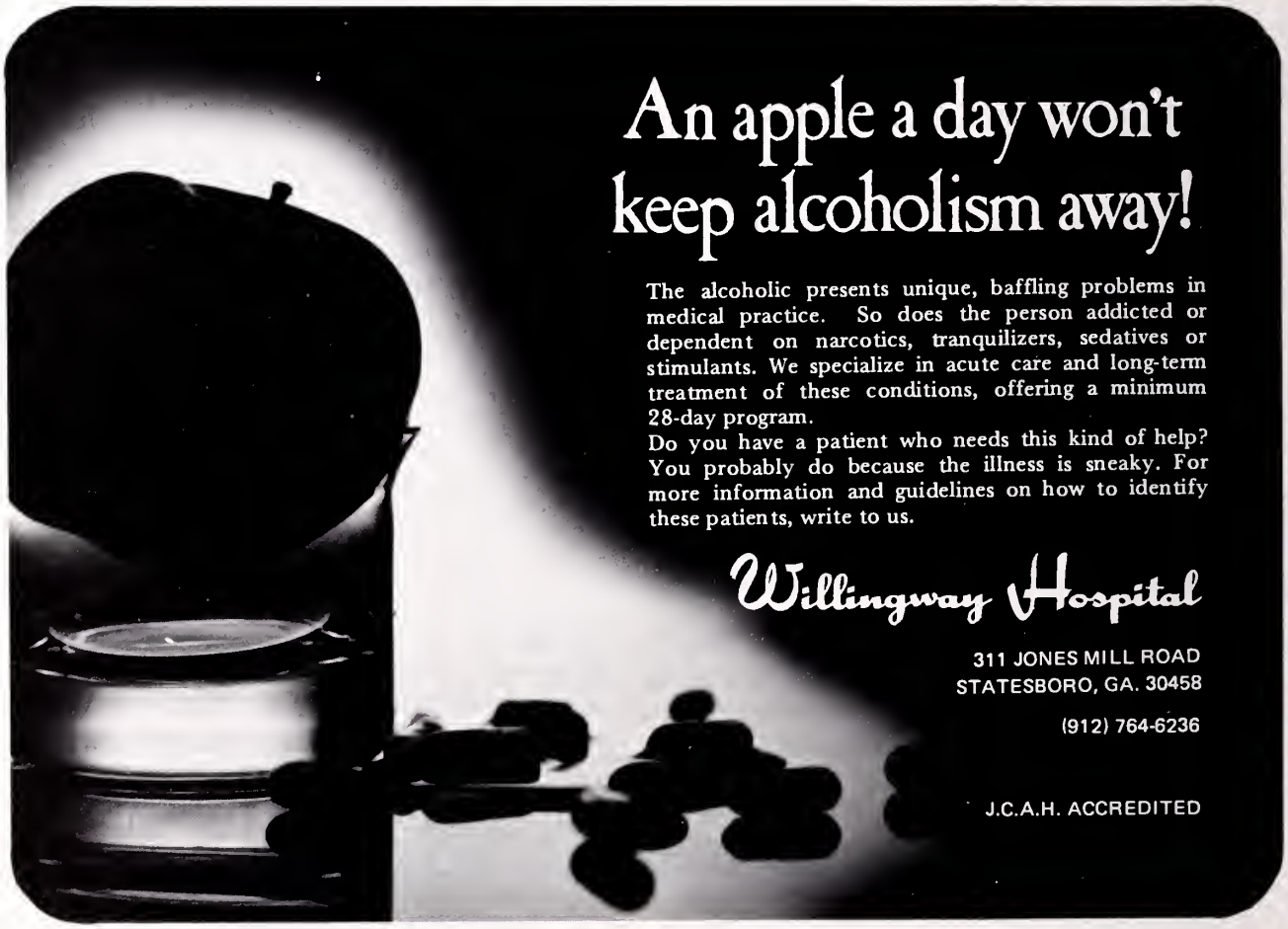
The students also recognized that the SCI project served as a practical introduction to preventive care and community medicine. This medical field is often

ignored by medical students because its scope is difficult to convey in didactic classroom sessions. Furthermore, the clinical years of medical training are oriented toward the hospital ward and the immediate needs of already diseased patients. The SCI members found that their experiences outside the classroom and hospital gave them a different perspective of preventive medicine. Many of the medical students acknowledged a growing sense of responsibility toward the development of the children's health-related behavior patterns that might eventually affect their adult life. The satisfaction of community service early in their careers is likely to encourage these training physicians toward a lifetime commitment of extending health care beyond the walls of a clinical office.

Summary

The activities of the Students for Community Involvement represent a successful project directed toward introducing the school children of Richmond County to the pathology of atherosclerosis and the risk factors which affect its development. The Health Improvement Program, conducted in Muscogee County is an example of how such a project could be extended through the academic year to continue the health education process.

The SCI program also allowed medical students to expand their knowledge of this disease and improve their communication skills. Perhaps most importantly, the SCI project oriented future physicians toward the usefulness of community medicine and the prevention, as well as the treatment, of atherosclerosis.



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Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

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For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
 The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.



F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis, intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively dunng pregnancy

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme ½ ounce (15 gm) tubes NDC 0524-0026-51
F-E-P Creme Plain ½ ounce (15 gm) tubes NDC 0524-0025-51
Federal law prohibits dispensing without a prescription.
July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16
Federal law prohibits dispensing without prescription.
February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.
July 1980

TWIN-K-CL™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CL is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CL may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CL be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CL is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CL taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CL are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®*
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus.*‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

WARNING:
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:
Adults: 250 mg. q 6h.

Children: 50 mg./Kg./day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:
Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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An overview of the recent outbreak of toxic shock syndrome cases associated with the use of tampons.

Toxic Shock Syndrome in Georgia, 1980: Epidemiologic Features

THOMAS W. McKINLEY, M.P.H., RICHARD A. GOODMAN, M.D., *and* R. KEITH SIKES, D.V.M., M.P.H., *Atlanta**

TOXIC-SHOCK SYNDROME (TSS), a severe acute disease associated with certain toxin-producing strains of *Staphylococcus aureus*, was first described in children by Todd et al.[1] in 1978. Recently, this syndrome has appeared to affect primarily menstruating women who use tampons.[2-6] In September, 1980, the Rely brand of tampons was found to be associated with an increased risk of illness, so the manufacturer voluntarily recalled the product from the market.[7] This paper summarizes TSS cases reported in Georgia during 1980. A description of TSS was published in the Office of Epidemiology's *Physician's Report*, a monthly newsletter.[8, 9]

Methods

In August, 1980, the Office of Epidemiology, Division of Physical Health, Georgia Department of Human Resources, initiated surveillance for TSS in Georgia. Each case report was reviewed and classified in one of three categories depending on history: definite, probable, and other. Definite cases fulfilled the strict case definition criteria published by the Centers for Disease Control (CDC) (Table 1).[6] "Probable" cases met the case definition except for one or more of the following criteria: temperature >38.9°C, hypotension with systolic blood pressure <90 mm Hg, and evidence of multi-system involvement (i.e., two rather than three or more organ systems). Cases not fulfilling the criteria listed for definite and probable were classified as other and have been excluded from this analysis.

Table 1 — Case Definition of Toxic-Shock Syndrome

Fever: temperature ≥38.9°C
Rash: diffuse macular erythroderma
Desquamation of palms and soles 1 to 2 weeks after onset of illness
Hypotension: systolic blood pressure ≤90 mm Hg for adults or below fifty percentile by age for children <16 years of age, orthostatic drop in diastolic blood pressure ≥15 mm Hg from lying to sitting, or orthostatic syncope
Multi-system involvement — three or more of the following:
Gastrointestinal: vomiting or diarrhea at onset of illness
Muscular: severe myalgia or creatine phosphokinase level at least twice the upper limit of normal for laboratory
Mucous membrane: vaginal, oropharyngeal, or conjunctival hyperemia
Renal: blood urea nitrogen or creatinine at least twice the upper limit of normal for laboratory or urinary sediment with pyuria (≥5 white cells per high-power field) in the absence of urinary-tract infection
Hepatic: total bilirubin, SGOT*, or SGPT† at least twice the upper limit of normal for laboratory
Hematologic: platelets ≤100,000 per cubic millimeter
Central nervous system: disorientation or alterations in consciousness without focal neurologic signs when fever and hypotension are absent
Negative results on the following tests, if obtained:
Blood, throat, or cerebrospinal-fluid cultures
Rise in titer to Rocky Mountain spotted fever, leptospirosis, or rubeola

*SGOT = serum aspartate aminotransferase.
†SGPT = serum alanine aminotransferase.
Source: Ref (5)

Results

Eleven definite and 13 probable cases of TSS were reported in Georgia in 1980, with the majority of cases occurring by the end of September (Table 2). All of the patients were women. The mean age for definite cases was 19.5 years (median 20 years)

* Mr. McKinley is an epidemiologist, Dr. Goodman is a medical epidemiologist, and Dr. Sikes is the Director, Office of Epidemiology, Family Health Service, Georgia Department of Human Resources, Atlanta. Dr. Goodman is also with the Field Services Division, Epidemiology Program Office, CDC, Atlanta. Address reprint requests to Mr. McKinley at the Department of Human Resources, 47 Trinity Ave., SW, Atlanta, GA 30334.

Table 2 — Cases of TSS Reported, Georgia, 1980

Time Period	Definite	Probable	Total
Jan.-March	3	4	7
April-June	2	5	7
July-Sept.	5	2	7
Oct.-Dec.	1	2	3
TOTAL	11	13	24

Table 3 — Number of Users by Case Classification

Tampon Brand	Definite	Probable
Rely	6 (55%)	7 (54%)
Tampax	1 (9%)	2 (15%)
Playtex	1 (9%)	1 (8%)
Unknown	3 (27%)	1 (8%)
None	0	2 (15%)
TOTAL	11 (100%)	13 (100%)

Table 4 — Cases by County of Residence

County	Definite	Probable
Brantley	1	
Clayton	1	
DeKalb	2	1
Dougherty	1	
Fulton	3	5
Gwinnett	1	2
Houston	1	
Jones		1
Polk		1
Ware		1
Unknown	1	2
TOTAL	11	13

and for probable cases, 29.9 years, (median 30 years). All women with definite cases and 10 of those with probable cases had onset of TSS during their menses. A history concerning menses for the remaining three women with probable cases was unknown. The median day of onset was the third day of menses. All of the women with definite cases and 11 of the 13 with probable cases used tampons. Table 3 lists the brands of tampons used at the time of onset.

S. aureus was isolated from vaginal or cervical cultures from two out of five women with definite cases (one of the three negatives was obtained after the initiation of antibiotic therapy). Specimens from four of the women with probable cases were cultured; all were positive for *S. aureus*.

The incidence of TSS in Georgia in 1980, based on the number of definite cases reported, was 0.75 cases per 100,000 menstruating women (ages 12-49) per year. When the probable cases are also included, the incidence was 1.6 cases per 100,000 menstruating women per year. Information regarding recurrence was not available. Cases by county of residence are listed in Table 4.

Discussion

The estimated incidence of TSS in any state probably reflects the methods used to identify cases in that state. For example, in January, 1980, Wisconsin initiated intensive case finding and surveillance for TSS. Consequently, the estimated rate of 6.2 definite cases per 100,000 menstruating women (ages 12-49) per year in Wisconsin[2] contrasts with the rate of 0.75 cases per 100,000 menstruating women estimated for Georgia. In addition, the case-fatality ratio in Wisconsin was 2.6% while in Georgia it was 0. Other states have reported higher case-fatality ratios.[6, 10] Shands, et al.[3] reported definite recurrence of TSS for 11 of 44 cases (25%) studied and probable recurrence in three additional cases (7%).

Studies have now established a definite association between TSS and the presence of *S. aureus* in the vagina or cervix.[2, 3] It has been suggested that toxins produced by the organisms may mediate the illness.[2] Vaginal or cervical cultures from six (67%) of the nine Georgia cases (five definite and four probable) were positive for *S. aureus*. A national study indicated that 96% of the specimens from women with TSS that were cultured were positive for *S. aureus*, while only 10% of specimens from a control group of 71 menstruating women were positive.[3]

A study conducted by the CDC of cases occurring in July and August, 1980, also demonstrated a clear association between tampon use and TSS.[6] All 50 (100%) women with TSS used tampons during the menstrual period in which their illnesses occurred; in contrast, tampons were used by only 124 of 150 controls (83%) ($P = 0.006$). Further analysis by brand of tampon used showed a statistically significant association with the Rely brand of tampons. Of 42 women with TSS who used only one brand of tampon, 71% used Rely, while only 26% of the 114 controls used Rely. The relative risk of TSS for users of Rely tampons was estimated to be 7.9 times that for users of other brands of tampons (odds ratio $P < .0001$; 95% confidence limits = 2.8 to 22.2). Although the number of reported cases is small, the observation that 55% of the definite and 54% of the probable TSS cases in Georgia were using Rely tampons when illness began is consistent with findings of the CDC study. The manufacturers of Rely tampons voluntarily ceased production and instituted a market recall of that product in September, 1980, after the announcement of the apparent increased risk of TSS among Rely users.[7]

An explanation for the increased risk of TSS among Rely users is not yet clear. More than 260 unused tampons of different brands (including Rely) from patients with TSS and by over-the-counter

purchase have been negative for *S. aureus* when cultured by CDC laboratories.[3]

The number of cases reported to CDC for the final quarter of the year (Oct.-Dec. 1980) decreased from the number reported for the previous two quarters (April-June and July-Sept. 1980)[11]: a similar trend occurred in Georgia. Several explanations for this decrease have been suggested. First, it is possible that diminished interest of health-care providers has led to decreased reporting. There is no way to assess the validity of this explanation in Georgia; however, CDC notes that reporting of cases of nonmenstrually associated TSS has remained relatively constant over the same time period. A second explanation is that, following the intensive publicity given to TSS, women have changed their tampon-use habits. A telephone survey of tampon manufacturers by CDC in July 1980, indicated that 70% of women in the United States used tampons; a survey in November/December 1980 indicated that only 55% used tampons. The 21% decrease alone was not felt to be a sufficient explanation for the total reduction in reported cases. Finally, it was suggested that the large number of women who discontinued use of Rely brand tampons after the manufacturer recall in September, 1980, coupled with the previous explanations, may have resulted in the reduction of cases reported.

Management and Prevention

Additional studies are needed to elucidate the relationship between tampons, staphylococcal toxin(s), and TSS. In the meantime, women can virtually eliminate their risk for TSS by not using tampons.[4-6] Women who choose to use tampons can also reduce the risk by intermittent rather than continuous use during the menstrual period.

When a woman is suspected of having TSS, suggested case management includes aggressive fluid replacement, a careful vaginal examination for removal of any retained tampons, and cervical and vaginal cultures for *S. aureus*. Specimens of blood, urine, stool, throat, and anterior nares should also be cultured if possible. Other important laboratory tests include white blood count and differential, serum bilirubin, asparate aminotransferase (SGOT), alkaline phosphatase, alanine aminotransferase (SGPT), urinalysis, blood urea nitrogen, serum creatinine, amylase, calcium, phosphate, albumin, and creatine phosphokinase isoenzymes.

Systemic, beta-lactamase-resistant, antistaphylococcal antibiotics should probably be used after appropriate specimens have been obtained. The use of such antibiotics appears to be effective, since almost all *S. aureus* isolates have been resistant to penicillin and ampicillin.[3, 5, 6] Because there is a 30% incidence of a recurrence, CDC recommends that tampons not be used by women who have had one episode of TSS until *S. aureus* has been eradicated from the vagina.

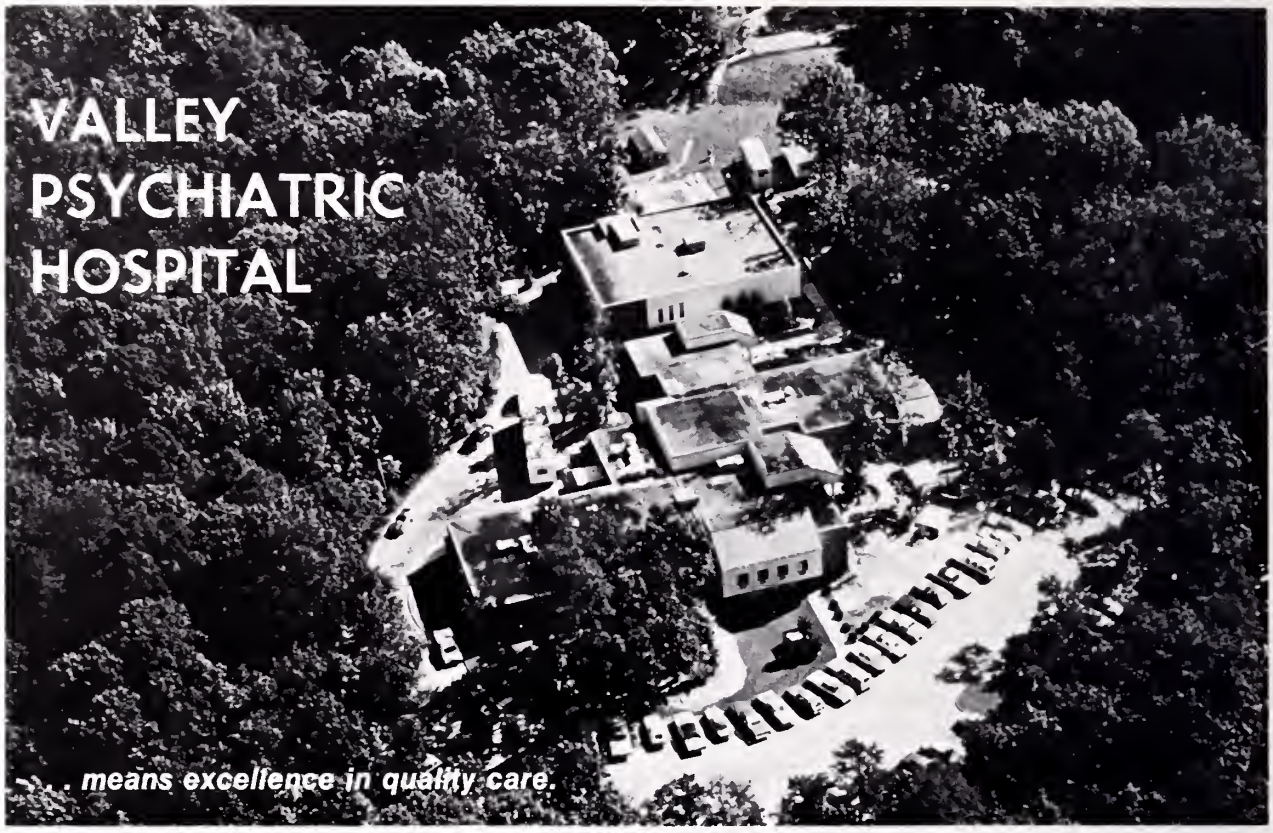
The Office of Epidemiology strongly urges continued reporting of all suspected cases of TSS and requests that *S. aureus* isolates and paired sera obtained from TSS patients be submitted to the Office of Epidemiology (acute-phase serum specimens should be obtained during initial illness and convalescent-phase specimens collected 2-3 weeks after onset). Specimens will be forwarded by the state laboratory to the TSS Task Force at CDC where studies are being conducted to identify a mediating toxin and antigenic marker for the laboratory diagnosis of TSS.

Acknowledgements

The authors thank physicians in the state of Georgia for their cooperation. Mrs. Elaine Brock assisted in the preparation of this manuscript.

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A clinical report describing the aspiration of a hepatic cyst using ultrasound guidance.

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E. P. RASMUSSEN, M.D., *Atlanta**

IN THE PAST SEVERAL YEARS ultrasound and computerized tomography (CT) have become generally available to aid in diagnosis and to detect a great variety of pathologic conditions. Ultrasound is especially valuable in distinguishing cysts from solid masses. Aspiration of cysts can avoid or obviate surgery. In some instances, abscesses can be fully drained percutaneously, and solid masses can be needled by aspiration of cells using a thin needle to aid in determining a diagnosis.

Case Report

A 60-year-old woman was found on a routine examination to have a mass in the epigastrium. She had no related symptoms. A nuclear liver scan was interpreted as showing multiple defects within the liver most consistent with metastatic disease. A barium enema and upper gastrointestinal series were performed, and the results were normal. An ultrasound examination showed that the palpable mass in the liver was a cyst. Several other cysts were also detected. The kidneys were similarly examined, and no renal cysts were found. The woman was treated on an out-patient basis, and the palpable hepatic cyst was aspirated using ultrasound guidance. Pathologic examination of the clear fluid showed no evidence of malignant cells.

The patient has remained well for more than a year since the initial diagnosis and aspiration. Follow-up scans have shown no significant change, and laboratory findings are also within normal limits.



Transverse CT scan showing two large and two small hepatic cysts

Discussion

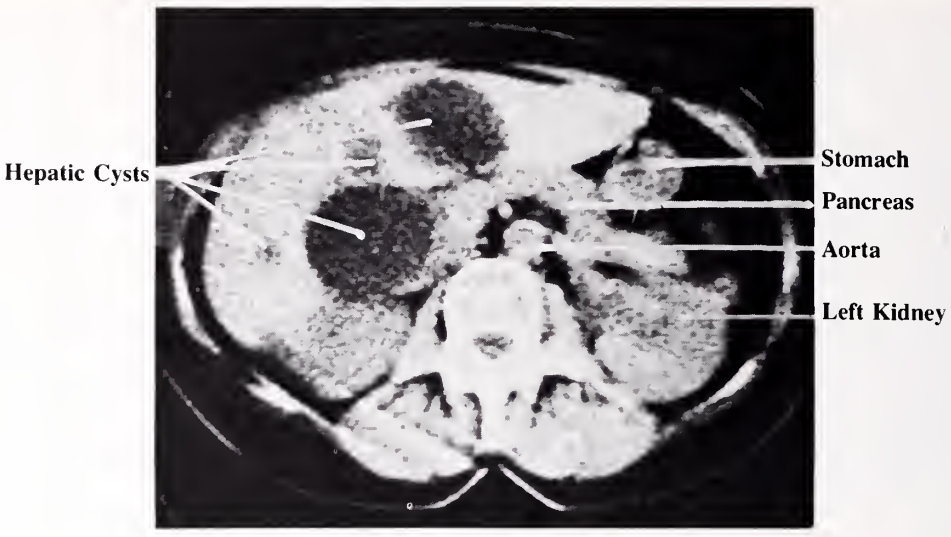
It has been shown by other authors[1-4] that a 22-gauge needle may be directed into the abdomen through the peritoneal cavity, bowel, and solid organs with a very low complication rate. Thus, needle aspiration of cells from solid masses may be accomplished under CT or ultrasound guidance.

It seems clear that the improved techniques in diagnosis, cyst aspiration, and needle biopsy are saving hospitalization costs, surgery, and morbidity. The most important result, however, is the improved patient care.

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* Dr. Rasmussen is with the Department of Radiology, Piedmont Hospital, 1968 Peachtree St., Atlanta, GA 30309.



Ultrasound (transverse) close to same level showing the two large cysts

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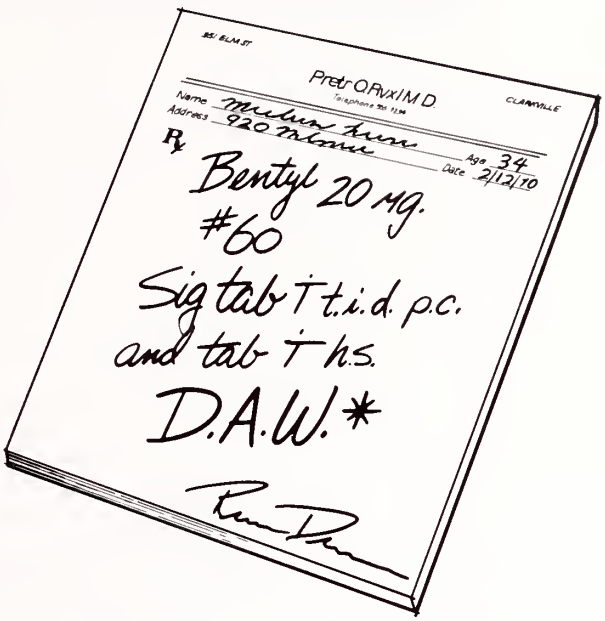
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CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

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PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.
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Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.
Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.
Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/ antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia, nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

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NOT FOR INTRAVENOUS USE.

MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

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The authors specify physical assessments and laboratory tests that should be performed to accurately define the nutritional status of a hospitalized patient.

Nutritional Assessment of the Hospitalized Patient

NATALIE B. McLEOD, M.D., JANE M. GREENE, M.S., R.D., *and* ELAINE B. FELDMAN, M.D., *Augusta**

ALL TOO OFTEN the management of nutrition in hospitalized patients is ignored, not because of lack of an available data base but because of failure to utilize what is readily available from the patient's chart. Without adding significantly to hospital cost, a simple nutritional screening can provide clues to the need for further nutritional assessment and management. The patient's height and weight should be measured and evaluated as a percent of ideal body weight. Recent changes in weight should be ascertained, especially a recent net loss in excess of 10%. Serum albumin levels below 3.5 gm/dl should be evaluated and the cause ascertained. If albumin levels are decreased, and the patient's ability to consume adequate calories and/or protein is compromised, it is important to carry out additional nutritional assessment procedures. Adequate nutritional therapy can then be planned.

History

The patient's recent dietary intake should be evaluated, including therapeutic or fad diets. Has the patient's present illness interfered with eating, appetite, taste or smell, and if so, how? Does he/she have a sore tongue or trouble chewing or swallowing? Does he/she have dentures or dental problems? Does he/she have abdominal pain, nausea, vomiting, or diarrhea? Are these symptoms related to eating any specific foods? What are the patient's minimum and maximum weights as an adult? The specifics of any recent changes in body weight should be ascertained. Present medications including vitamin supplements should be noted. Alcohol intake should be ascertained.

Physical

Some physical signs are clues to possible nutritional deficiencies. The head hair should be observed for texture, luster, pluckability, and color. The pigmentation and texture of the skin should be noted, as well as the presence of seborrhea, hyperkeratosis, hemorrhage, or flaking. Pale conjunctiva, xerosis, and the presence of Bitot's spots should be noted. The lips should be examined for angular stomatitis, angular scars, and cheilosis. The tongue should be observed for edema, color (beefy red or magenta), papillation, and/or atrophy. Examine the teeth for mottling and the gums for color and bleeding. The thyroid and parotid glands should be palpated for enlargement. Thin, concave spoon-shaped nails should be noted. The patient should be examined for muscle wasting and edema. The patient's neurologic status should be observed for mental status, peripheral neuropathy, eye muscle function, and vibratory sense. Liver size should be noted.

Tables of normal values are available. Anthropometric measurements in addition to height and weight may be used with other data to provide an estimate of protein and calorie status. The triceps skin fold (TSF) thickness measures caloric stores. The midarm circumference (MAC) can then be used to calculate the midarm muscle circumference (MAMC) which is an indirect indicator of muscle mass (lean body mass). The MAMC is calculated via

* This is a report of the MAG Committee on Nutrition. Dr. McLeod is an Instructor, Ms. Greene is a research scientist, and Dr. Feldman is a Professor of Medicine and Chief, Section of Nutrition, Department of Medicine, School of Medicine, Medical College of Georgia, Augusta, GA 30912. Send reprint requests to Dr. Feldman.

the following formula: MAMC (cm) = MAC (cm) − [.314 × TSF (mm)]. TSF <30% and MAMC <70% are indicators of severe nutritional depletion. The height (wall reference) is used to determine ideal body weight (IBW). For women IBW is 100 lbs. for 5 feet plus 5 lbs per inch above 5 feet. For men, weight at 5 feet is 106 lbs plus 6 lbs per inch above 5 feet. It is important to evaluate weight (beam balance scale) not only in terms of IBW but also in relation to the patient's normal weight.

Laboratory

A useful estimate of visceral protein status is the serum transferrin level. Proteins with short half-lives, such as transferrin, retinol binding protein, or prealbumin, reflect response to nutritional repletion rapidly. Total protein and albumin values are affected by hydration of the patient and shifts in body fluid compartments. As the SMA-12 is often done routinely on admission, however, the albumin level is a readily available laboratory indicator of the patient's nutritional status. Albumin levels of <3.5 gm/dl may reflect moderate protein malnutrition. Serum proteins are usually lowered in the presence of stress or liver or renal disease, so other parameters must be evaluated to determine if the low albumin reflects poor nutritional status. Persistence of unexplained low levels of serum albumin beyond a week following a stressful situation reflects actual nutrition deficiency and the need for support.

Nitrogen balance is used to evaluate overall protein status and the effectiveness of nutritional therapy. In order to calculate nitrogen balance, accurate protein intake must be obtained, usually by a dietician. Nitrogen balance = [24 hour protein intake (g) ÷ 6.25] − [urine urea nitrogen excretion (g/24 hr) + 3].

The cellular immune system is severely compromised by protein-calorie malnutrition as well as by other factors such as aging and neoplasm. In patients with decreased visceral protein (albumin <3.0, transferrin <150, absolute lymphocytes <1,500) impairment of cell mediated immunity is common. Total lymphocyte count =

$$\frac{\%\ \text{lymphocytes} \times \text{WBC}}{100}.$$

Low total lymphocyte count may reflect nutritional status but often reflects the patient's basic illness.

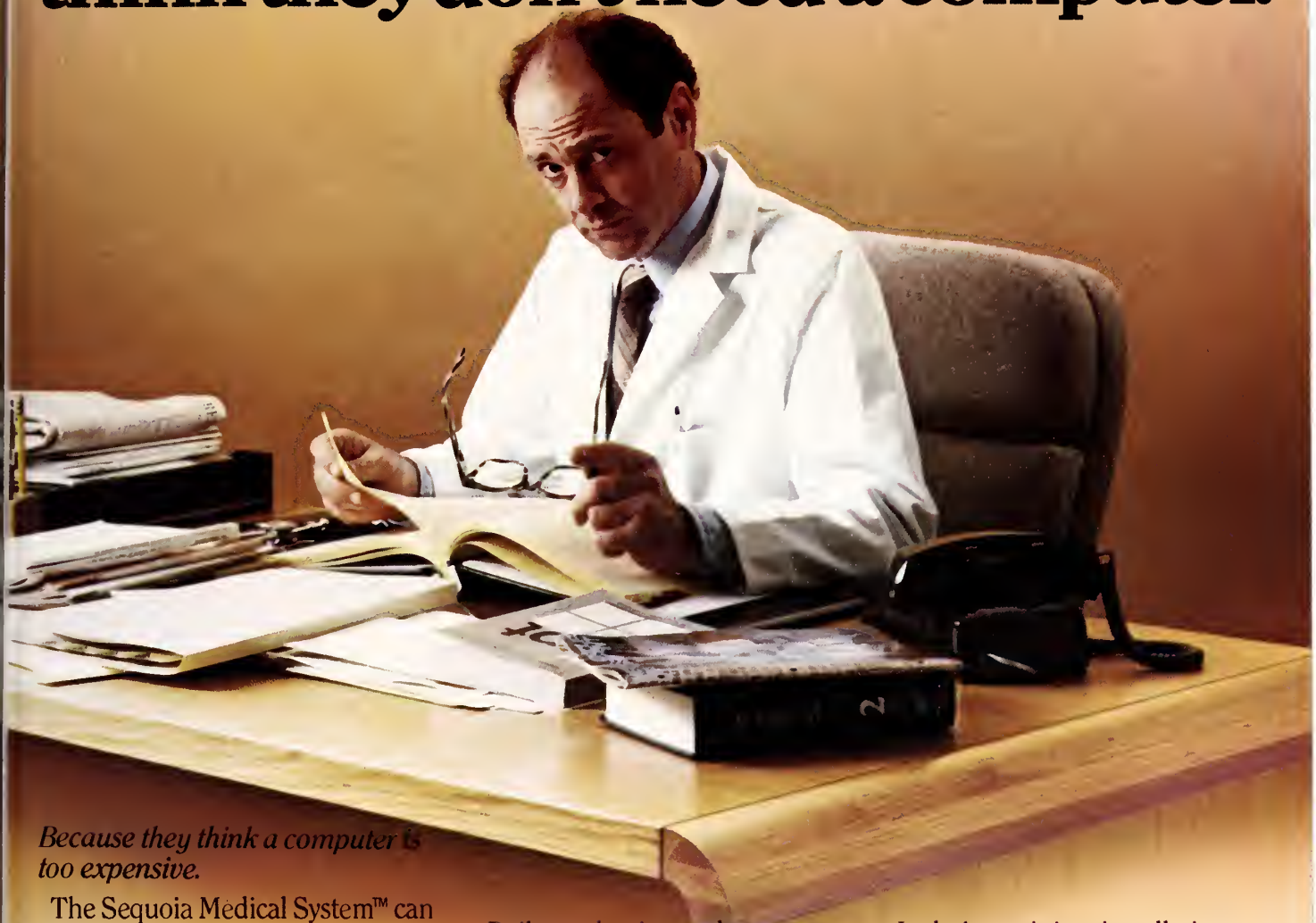
The creatinine/height index reflects muscle mass. This requires accurate, 24-hour urine collections and measurement of creatinine. Normal values for men are 23 mg/kg IBW, and for women, 18 mg/kg IBW.

Other laboratory data are useful in assessing specific nutritional deficiencies. A depressed SGOT may indicate pyridoxine deficiency; low alkaline phosphatase may indicate zinc deficiency; and abnormal hematologic indices may reflect iron, folate, or B_{12} deficiencies.

Summary

No single parameter can be used to give a positive index of nutritional health. A number of physical findings and laboratory tests interpreted in the context of the patient's history should reliably pinpoint potential nutritional problems. By obtaining and evaluating information available from the history, physical examination, and laboratory data on the chart, a good estimate of nutritional status can be obtained. Further evaluation by the dietician will help the physician consider appropriate diagnostic tests to confirm the existence and extent of nutritional deficiency and its cause. Then appropriate nutritional therapy can be instituted.

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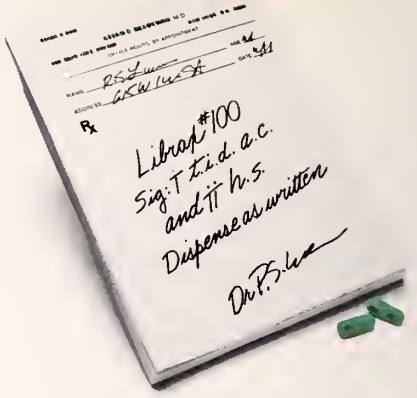
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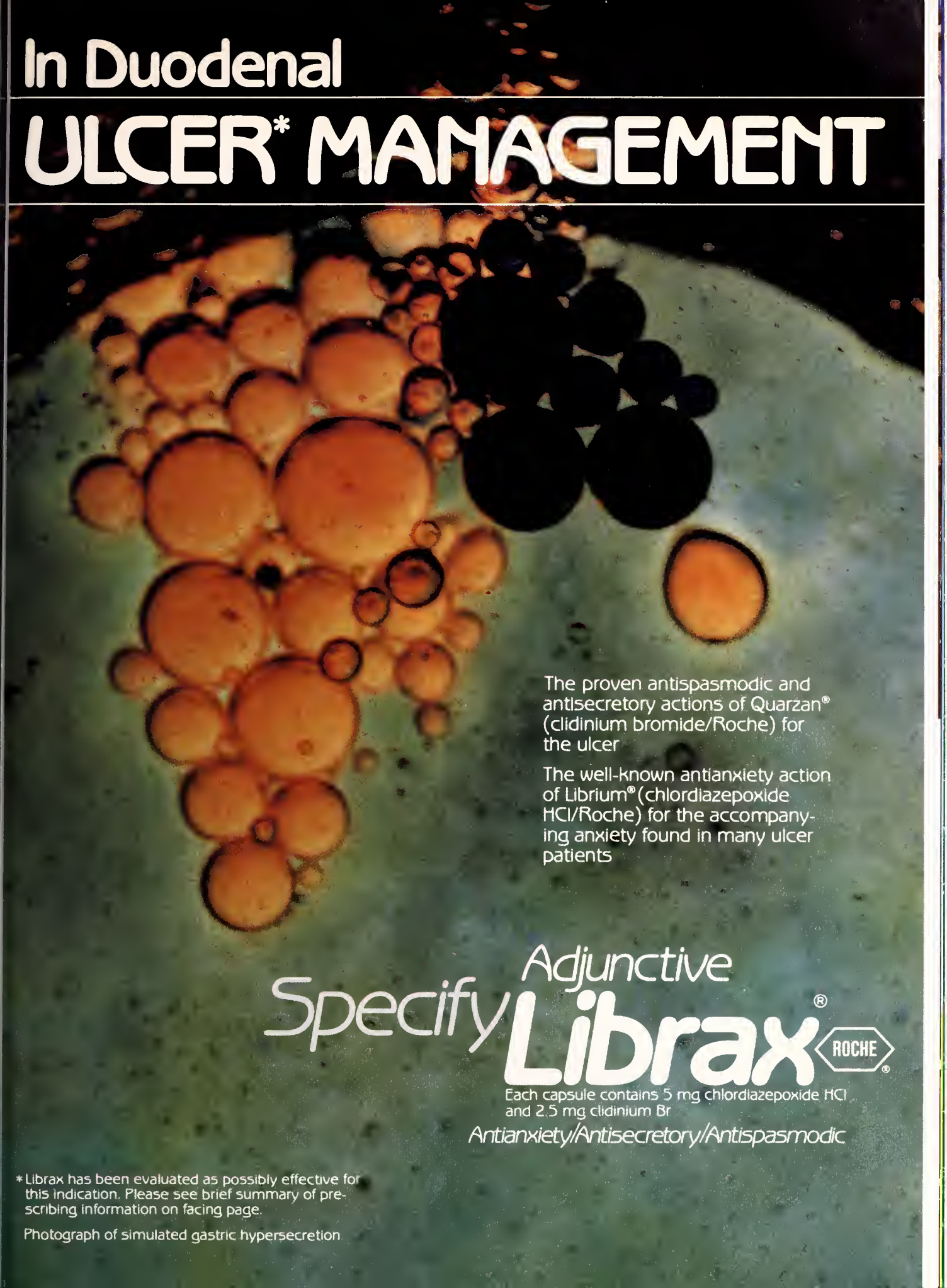
As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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CONTRAINOICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect, rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence.* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy.* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children.* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

AOVERSE REACTIONS: *Cardiovascular.* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System.* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal.* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine.* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System.* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous.* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND AOMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M. T. et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

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ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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The author compares and contrasts the American system of health delivery with those of Britain and Germany.

Restructuring the U.S. Health Care System Based on a German Model

JAMES W. HOLSINGER, JR., M.D., Ph.D., *Augusta**

PUBLIC SENTIMENT for change in the health care delivery system in the United States has waxed and waned since the end of World War II. For the past 10 years, political sentiment for a change in the fee-for-service system of providing health care has markedly increased. The United States is the last major country to continue a basically private system of ownership of the health care delivery system. Compulsory national health insurance was first introduced by Bismarck in Germany nearly a century ago.[1] Today nearly every Western developed nation has a national health insurance plan. It is interesting that in nearly every instance, these plans have been developed based on the previous system of medical organization and finance reflecting the particular nation's traditions, values, and circumstances. It must be remembered that even though the United States does not profess to have a national health insurance program or a national health service, approximately half of all health care expenditures are paid using government funds and in addition a significant additional amount is paid indirectly through tax exemptions and allowances.[1]

There are a variety of reasons for considering the development of a national health insurance system in the United States. From a political point-of-view, the continuing upward spiral in health care costs represents the most obvious reason. Currently, health care costs are approaching 10% of the Gross National Product (GNP), a level which is felt to be too high by most political observers. It is interesting to note that with the growth of industrialization and the migration from farm to city, the development of insurance and the expansion of the health care delivery system resulted in the provision of insurance and care being moved out of the family and into the service section of the market economy.[1] Thus, the rise in the level of the GNP attributed to health care is an accounting illusion in which those functions previously provided by the home and not consisting of part of the GNP have been moved into the health care delivery system where it is counted as a part of the GNP.[1] However illusory this portion of the GNP may be, it remains a fact of the political life of the United States that its level is of significant importance in determining the need for a national health insurance system.

It is also important to realize that the way in which health care is delivered is culturally determined.[2] A major question which must be answered in the United States is whether or not a culture is willing to accept a major restructuring of its health care delivery system. In the Western world, there are two major foci of health care — scientific and humanistic. The British health care system is based on the humanistic focus, while the German system is based on the scientific. The United States has adopted a system which is modeled on the German system rather than on the British one. Therefore, if the United States were to seriously consider a restructuring of its health care system, it would be logical to assume that a new health care system could be modeled on the German system.

The health care delivery system of the Federal

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Republic of Germany has grown in its coverage from approximately 15% of the population in 1883 to the point where nearly the entire population is covered.[3] Originally, medical care was limited to 18 weeks, but now it is nearly unlimited in its duration. Since 1960, nearly all independent practitioners are registered with the sickness funds which provide health care benefits to their members. "The public medical care system in Germany, although established by statute and subject to government regulation and supervision, is actually administered by 1,900 sickness insurance funds (Krankenkassen)."[4] These sickness funds negotiate with the regional physicians' groups and the local hospitals in order to develop a fee schedule for those procedures which each fund must provide for its members in order to meet minimum health care standards as set forth by law. In addition, each fund negotiates for any supplemental benefits that they might provide for their respective membership. There are four types of funds available including locality funds based on place of residence, enterprise funds based on place of business, guild funds based on occupation, and substitute funds which are usually based on white collar workers.[4]

The strong points of the German system as a model for restructuring the American system include continuation of private health care delivery with a fee-for-service approach.

Approximately 55% of all physicians in Germany are in private, independent practices, one-third are employed by hospitals, while the other tenth are in administration or research. About 55% of the practicing physicians are in general practice. Half of all physician specialists are in private, independent practice outside the hospitals. In-hospital treatment is administered by physicians salaried by the hospital. In order to receive care from one of the practicing physicians in Germany, the insured individual obtains a certificate from the health insurance office and presents it to the physician of his choice as long as that physician is registered with the individual's sickness fund. Following treatment, the physician uses the certificate to obtain reimbursement from the patient's fund, sending the certificate to the Insurance Physicians' Association for reimbursement. Patients must submit a new certificate each quarter to their physicians in order to continue to obtain care and can only change physicians on a quarterly basis. They may be referred to a specialist by their general practitioner or may refer themselves if they have not yet surrendered their quarterly certificates to another physician.[4]

The strong points of the German system when used as a model for possible restructuring of the American system include the continuation of private health care delivery with a fee-for-service approach; the free choice of a physician and hospital; and the continued use of private health insurers instead of the creation of either a new governmental bureaucracy or sickness funds. Thus, in using Germany as a model, the means of production, in this case the provision of health care as a service, remains in the private sector. Should the United States opt for a system patterned on that of Great Britain, the federal government would immediately own a sector of the economy encompassing 10% of the GNP. Following the German system, the United States would maintain a system of private ownership including health insurance but with governmental regulation of the level of benefits.

Should a society determine that it is in its best interest to restructure its health care system, it would stand to reason that it would look to another health care system within its own tradition for a possible model. It would also stand to reason that such a society would select those functions within the model system which would benefit the restructuring society and reject those functions which would provide little or no benefit. It is of interest that in the case of the United States, although it does not currently have in place an explicit national health insurance system, it does already have an implicit system, especially for catastrophic illness. Individuals are either insured privately, publicly, or are uninsured. But in either event, those who need health care obtain it either through government hospitals, philanthropy, or bad debts.[1] For the United States, the German national health care system is a useful model.

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Two cases of sporotrichosis are described. One responded well to iodides, while the other responded only to a combination of drugs and surgical excision with skin grafting.

Sporotrichosis of the Extremities

WILLIAM BOGEDAIN, M.D., LEDWINA A. COLINA, M.D., WANG-KUEN WU, M.D., *Salisbury, North Carolina, and* UI HO PARK, M.D., *Dublin**

Introduction

SPOROTRICHOSIS most often produces ulcerating lesions of the extremities. If the ulcers become chronic they can be very disabling. Two cases are described: One was easily cured with iodides. The other case healed, but the treatment was unusual. The asteroid body, rarely seen in North America, was demonstrated microscopically.

In 1898, Schenck published an article entitled, "On Refractory Subcutaneous Abscesses Caused by a Fungus Possibly Related to Sporotrichia."[1] In 1947, the Transvaal Chamber of Mines reported an epidemic of sporotrichosis involving nearly 3000 South African gold miners, of whom only five did not have the classic cutaneous and lymphagitic form of the disease.[2]

Various clinical forms of the disease are recognized as being due to infection by this worldwide distributed, saprophytic organism. It is found among plants, insects, animals, and man. It can be transmitted by the bites of insects, birds, and both wild and domestic animals.

Sporothrix schenckii infection usually affects the skin, producing polymorphous lesions over the legs, arms, and face. Infection rarely becomes disseminated. Link in 1809 first described the saphrophyte. In the United States, the majority of cases have been more prevalent in the Missouri Valley and Mississippi Basin, and least prevalent in the West.[3] It occurs most commonly among farmers and nursery personnel who handle sphagnum moss. Presented here are two cases of cutaneous ulcer due to sporotrichosis.

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Case #1

Mr. Z, a 57-year-old veteran, was first seen at our hospital in 1976. He had been employed on a cattle farm in South Dakota. Multiple leg ulcers had troubled him since 1942. There was no history suggesting sarcoid, lues, diabetes, vascular problems, or tuberculosis. In August, 1975, the ulcers were skin grafted at another hospital. Cultures were negative for fungi. There was no mention of fever or pus about the ulcers.

The ulcers appeared unusual. They were multiple, deep, irregular, shaggy, indolent, and nonpurulent (Figures 1 and 2). There was no evidence of arterial or venous impairment. The patient experienced moderate pain and swelling about the ankles, especially when walking.

His white blood count was 12,200 with 76 neutrosegmented, 16 lymphocytes, and 4 monocytes. Scrapings were taken from the edge of the ulcer and normal skin and cultured for fungi. The fungus was grown on Sabouraud's medium at room temperature, and its identity was confirmed by the North Carolina Health Department. Periodic acid-Schiff stains demonstrated the asteroid body (Figure 3). The tissue was taken from the junction of the ulcer and normal skin by punch biopsy. The material was examined at the Centers for Disease Control by immunofluorescence and considered to be "very suggestive" of *S. schenckii*.

Treatment with daily betadine soaks to the ulcers and oral iodides in gradually increasing doses were sufficient to effect complete healing in 6 weeks. Cultures after 8 weeks did not reveal any evidence of *S. schenckii*.

Case #2

A 52-year-old veteran was admitted in July, 1978,



Figure 1 — Ragged irregular edges.

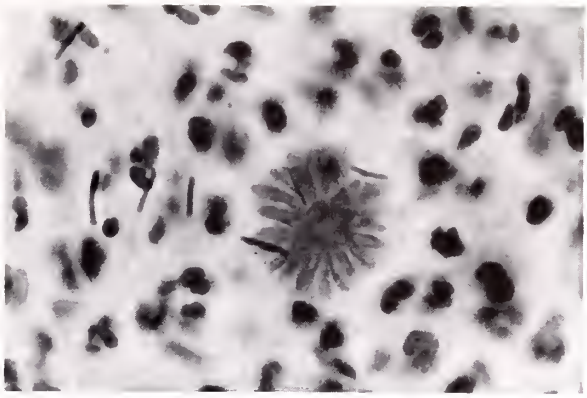


Figure 3 — Asteroid body, ×100.

complaining of a dry, multinodular, serpiginous lesion of the forearm of 1 year duration. The patient did not give a history of trauma or breaks in the skin. He was diabetic, obese, and hypertensive. The lesion began as a pimple (Figure 4) and did not ulcerate. Scrapings from the margins were macerated, placed in saline, and cultured. *S. schenckii* was positively identified by tube agglutination test in 1-8 dilution and latex agglutination test 1-2 dilution (Figure 5). The Centers for Disease Control confirmed the presence and identity of asteroid bodies in microscopic sections.



Figure 2 — Shaggy and indolent ulcer, unusual in location.



Figure 4 — Superficial lesions, elbow.

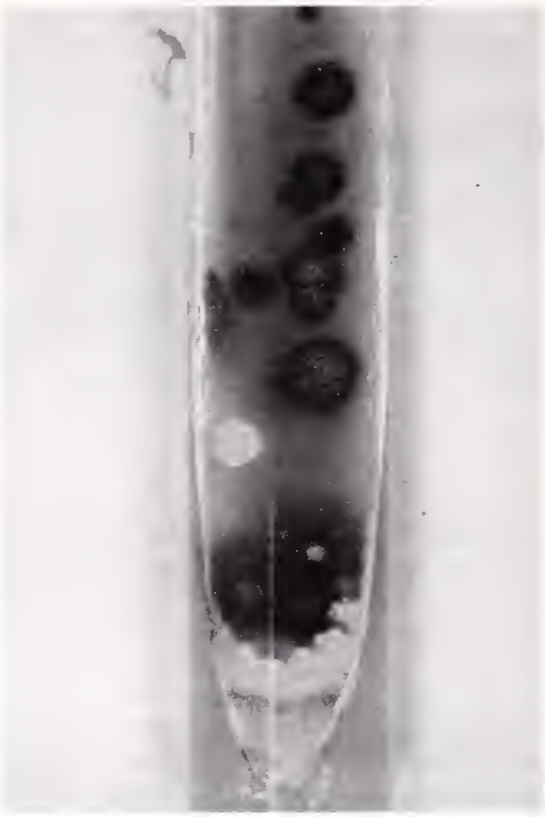


Figure 5 — Colonies of S. schenkii on Sabouraud's.

The initial treatment with iodides had to be discontinued because of a diffuse, burning skin rash. Intravenous amphotericin B* was given for a 4-week period. A total dose of 1427 mgs. was given before the patient's veins gave out. Oral Ancoban,† 1000 mgs. every 6 hours was prescribed. After 3 weeks, the skin lesions appeared unchanged. The patient became discontented and impatient with the lack of progress. The skin lesions were removed en block and a skin graft covered the defect. Ancoban was continued 2 weeks postoperatively. The patient has remained free of disease or further skin lesions.

* Amphotericin B (fungizone) Squibb.
† Ancoban (flucytosine) Roche.

Comments

In Case #1, the diagnosis was confirmed by the North Carolina Department of Health. The asteroid body, rarely seen in North America[4-8] was demonstrated histologically. This body has also been associated with cases of coccidiodomycosis, actinomycosis, and cryptococcosis and is not specific for *S. schenckii*.[9] It was seen on periodic acid-Schiff stains. For some unknown reason it has frequently been demonstrated histologically in cases of sporotrichosis seen in Europe, Africa, and South America.

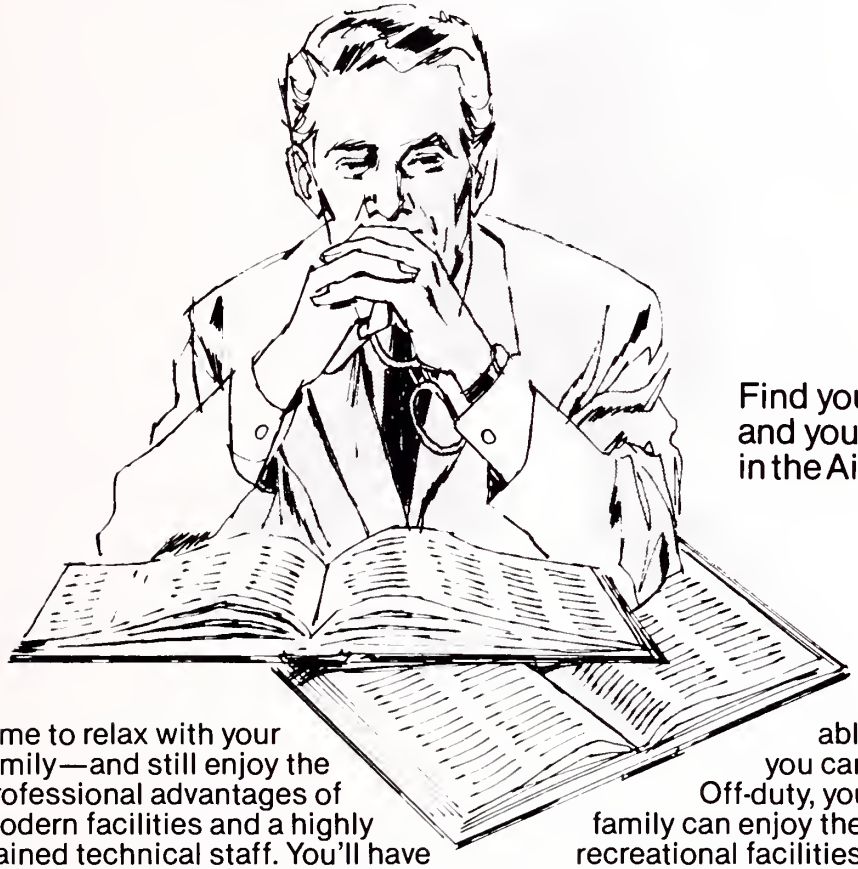
Case #2 was diagnosed and also confirmed by our State Health Department as a case of *S. schenckii*. However, this patient's treatment plan was modified. A diffuse itching rash developed with iodide therapy. Amphotericin treatment was discontinued when the patient had no veins for intravenous therapy. Surgical, en block, excision and skin grafting under an Ancoban umbrella was sufficient to remove any further signs of *S. schenckii*.

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Reagan Will Recover If We Let Him

PRESIDENT REAGAN may be almost fully recovered physically from his wounds, but his mental recovery may take much longer. I hope we will give him the time and privacy he needs. If we don't, he could be in for a deep depression several months down the road.

When someone suffers a severe accident, illness, or assault, they suddenly feel vulnerable to everything. "It" **did** happen to them, and the realization that, "I almost died" makes life seem more frightening. It takes time to sort out the emotions associated with a near escape from death — time to reorganize our thoughts and cope with complex psychologic reactions.

We all experience minor traumas every day. Nothing drastic: say you are running on a tight schedule and stop at a drugstore. In your haste you lock the keys in your car, and then must either wrestle with a coathanger, call a relative for the spare keys, or pay a locksmith to open your car. All that afternoon and perhaps for the next day or two you tell everyone about your foolish, "stupid" mistake. By telling and retelling the event, you are coping with the temporary disorganization it caused.

People who have had surgery are even more prone to this. The competent surgeon knows he must save time for each patient to hear their perceptions of the operation: it is as necessary for the patient in coping with his operation as it is for the person telling about the locked keys. And for them, the scar is a visible sign of the trauma. Who could forget the picture of Lyndon Johnson displaying his abdominal scar after gallbladder surgery?

After any traumatic episode, there is a general sequence of emotional responses. First, the individual may deny the episode occurred. Second, he/she then accepts it. Next comes anger toward oneself or toward the individual or group who caused the incident. The person finally goes through a reorganization period, and takes up his or her life again, sometimes functioning better in normal activities, sometimes worse. This sequence occurs whether the trauma is mild or severe, whether the individual involved is a postman or a president.

The personality of the person is a significant factor in recovery. I once treated a 60-year-old wholesale furniture salesman for depression. He was an extremely well-organized man who had set company sales records for 10 years. On his way to work one morning, he was involved in a minor highway accident. It was not his fault, and although he was shaken up, he was not physically injured. The other driver, fearing a lawsuit, insisted that the salesman be examined by a doctor. This process took several hours; afterwards, he began his calls in a rental car. He finished his day's work and went home to complain bitterly to his wife about the unforeseen accident, how much time he'd lost, and how it "totally knocked the props out from under me." He called in sick the following day, and gradually became depressed; it took him 6 months to recover.

This compulsively organized man probably suffered more than would a more carefree or relaxed individual, who might even have enjoyed his "morning off."

People on strict schedules may similarly resent time lost because of trauma, both the actual time the incident takes, and the time they need to recover from it. We are learning more about responses to trauma every day, and as physicians, we need to be aware of these reactions and teach our patients about them.

Many Vietnam veterans who fought in an "unpopular" war are only now showing symptoms of that experience, both physical and psychological. A startling statistic: Vietnam veterans comprise 0.9% of the general population, but 11% of our prison population.

Prominent persons must also contend with an added stress after trauma — publicity and higher expectations. Mrs. Jacqueline Kennedy was a stalwart figure for months after her husband's assassination in 1963. Not until 4 years later did her bitter depression surface in public.

For the first 2 days after President Reagan's surgery, physicians described his recovery as "splendid." The press and public read that as "astounding" and "miraculous." Only the week after his operation did we learn that he was human after all — running a fever, taking antibiotics, and having trouble sleeping. The Saturday morning before his discharge, the hospital spokesman finally admitted that a 70-year-old man might take longer to recover from a gunshot wound than would a younger man.

Because he is our president, we attribute to Reagan more strength than the average citizen, and perhaps we expected a "miraculous" recovery. Thus, the normal course of healing may have been somewhat more difficult for him, since he realized he had our expectations to live up to.

His emotional recovery may be similarly more difficult if we do not allow him enough time to sort out his responses to the shooting, and follow the sequence of reactions. It is fortunate for him that being wounded by gunshot is far more "heroic" and acceptable than being manually assaulted by an individual or by a gang throwing rocks and bottles.

Reagan must be allowed to tell and retell his story to sympathetic listeners in private. Still, anger and frustration mounts in the traumatized individual when he feels his life has been totally disorganized. That is why — and this is psychiatric, not political — if some of the President's economic programs are rejected he may tend to blame it on the assassination attempt, and his emotional recovery may take that much longer.

Alfred A. Messer, M.D., Atlanta
Psychiatrist

MAG-SMA Telecourse System — A New Approach to CME

ALTHOUGH THE MAG opposes mandatory continuing medical education (CME) for relicensure or for state medical society membership, our Association nonetheless strongly encourages each and every MAG member to participate in continuing medical education. Obviously CME for the physician must continue to include the time-honored, pluralistic system of reading, consultation, rounds, various types of conferences, selected medical meetings, etc. The question these days is not whether the physician should engage in CME, but how to get top-quality medical education of the type which will allow the physician in practice to be optimally effective in the care of his/her patients for the lowest cost.

As an alternative to the high priced meeting which we are constantly being enticed to attend, the MAG, in cooperation with the Southern Medical Association (SMA), is promoting the Telecourse System of videocassette CME. The Telecourse System is designed for the physician in practice and offers up-to-date information on a wide variety of clinical subjects. There are over 500 Telecourses from which to select. Each videotape is prepared by a leading medical school, hospital, or research center, carefully screened by an Editorial Board, and accredited for AMA Category I and V Credit, AAFP prescribed credit and ACOG cognates. Subjects and descriptions are categorized according to specialty. As a result, the physician can easily stay current with recent information from leading medical institutions that specifically fits the needs of his/her practice while effectively managing his or her own time.

All MAG members will shortly be receiving full information on the Telecourses through a brochure which will be mailed out with our CME Data Collection Folder. Please examine this brochure closely, for the Telecourses may offer you just what you need for CME.

Mandatory CME is not right for Georgia physicians, but low-cost, high-quality CME is. I urge you to consider using the MAG-SMA Telecourse System as an excellent and effective method of getting the scientific information you need for your practice.

Edwin C. Evans, M.D.
Chairman, Committee on Education
President-Elect, SMA

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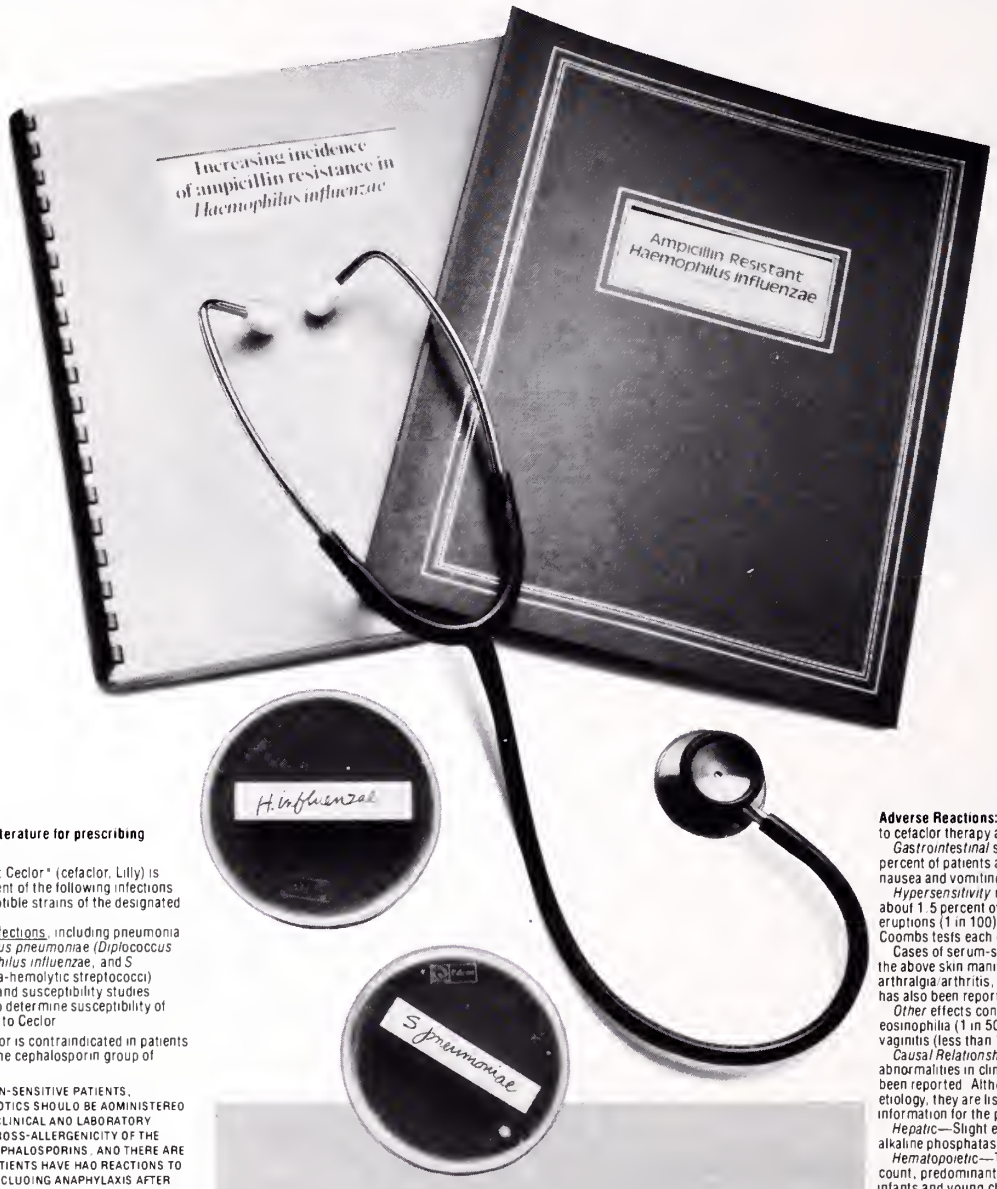


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Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

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Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

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Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

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Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae* [8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

References

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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Georgia Supreme Court Orders Caesarean Section — Mother Nature Reverses on Appeal

ROBERT N. BERG, *Atlanta**

THE GEORGIA SUPREME COURT recently was faced with the unenviable task of rendering a decision on an issue of immense importance involving legal, medical, and religious principles. The decision reached by the Court[1] and the miraculous occurrences subsequent to that decision present an intriguing topic for this month's Legal Page.

The story begins on Jan. 22, 1981, when the Griffin Spalding County Hospital Authority petitioned the Butts County Superior Court for an order authorizing the County Hospital to perform a caesarean section on and administer any necessary blood transfusions to Mrs. Jessie Mae Jefferson. The reason for the Hospital Authority's request was the fact that Mrs. Jefferson, who was in her thirty-ninth week of pregnancy, was found by her examining physician to have a complete placenta previa. According to the Hospital Authority, it was virtually impossible for Mrs. Jefferson's condition to correct itself prior to delivery, resulting in a 99% certainty that the unborn baby would not survive natural childbirth. On the other hand, in the event that a caesarean section was performed, the Hospital Authority believed that the unborn infant would have an almost 100% chance of surviving. The Hospital Authority also contended that a caesarean section would significantly decrease the risk of injury to Mrs. Jefferson.

Mrs. Jefferson opposed the recommendation of the examining physician[2] because of her religious beliefs.

The Superior Court began its analysis by finding that the "viable"[3] unborn baby had the constitutional right to the protection of the State of Georgia. Accordingly, since the life of Mrs. Jefferson and of the unborn baby were inseparable, the Superior Court found it necessary to infringe upon the wishes of Mrs. Jefferson in order to give the unborn baby an opportunity to live.

At the time of its decision, the Superior Court expressly refused to rule on the question of whether Mrs. Jefferson could be mandatorily required to obtain a caesarean section. Rather, the Superior Court limited its ruling to the situation in which Mrs. Jefferson voluntarily sought admission into the County Hospital for the emergency delivery of the infant. The Superior Court did indicate, however, that, should some agency of the State seek to impose a mandatory caesarean section upon Mrs. Jefferson, the Superior Court would promptly consider such a request.

* Prepared at the request of the Medical Association of Georgia. Mr. Berg is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

The request was not long in coming. On Jan. 23, 1981, the Georgia Department of Human Resources, acting through the Butts County Department of Family and Children Services, petitioned the Butts County Juvenile Court for temporary custody of the unborn infant, alleging that he/she was deprived and without proper parental care necessary for his or her physical health. The Court began by sidestepping the difficult issue of jurisdiction arising out of the fact that the Juvenile Court had no jurisdiction over Mrs. Jefferson and arguably had no jurisdiction over the unborn baby and held a combined hearing of the Juvenile Court and the Superior Court acting in its capacity as a court of equity.

The Court then proceeded to find that the unborn baby was a human being fully capable of sustaining life independent of the mother, and therefore entitled to the protection of the Juvenile Court. Moreover, the Court held that the baby was without proper parental care and subsistence necessary for his or her physical life and health. Accordingly, the Court granted temporary custody of the unborn baby to the Georgia Department of Human Resources, custody which would expire when the baby was born. The Court also ordered Mrs. Jefferson to submit to a sonogram (ultra sound) at the County Hospital for the purpose of determining whether or not her condition had changed. The Court stated that, in the event that Mrs. Jefferson's complete placenta previa was still blocking the birth canal, Mrs. Jefferson would be ordered to submit to a caesarean section and related procedures (including blood transfusions) considered necessary by the attending physician to sustain the life of the infant.

Later that same day, Mrs. Jefferson filed a motion with the Georgia Supreme Court requesting the Court to stay the order of the combined Superior Court/ Juvenile Court hearing. After oral arguments before the Supreme Court later that evening, the Court denied Mrs. Jefferson's request and affirmed the order of the Superior Court. Although the Court did not recite the legal principles supporting its decision, it did cite a 1964 New Jersey case holding that, while a competent adult had the right to refuse necessary lifesaving surgery and medical treatment where the State has no interest other than in saving the life of the patient, an expectant mother in the last weeks of pregnancy lacked the right to refuse necessary lifesaving surgery and medical treatment where the life of her unborn infant was at stake.[4]

In a special concurring opinion, Justice Hill summarized the analysis utilized by the Court in making its difficult decision as follows:

> "In denying the stay of the trial court's order and thereby clearing the way for immediate re-examination by sonogram and probably for surgery, we weighed the right of the mother to practice her religion and to refuse surgery on herself against the unborn child's right to live. We found in favor of her child's right to live."[5]

Additionally, as set out in a second concurring opinion by Justice Smith, the Court was impressed by the fact that, while the State's intrusion into the rights of Mrs. Jefferson would itself present some medical risks to both the mother and her baby, the medical evidence indicated that the risks to both of them presented by a caesarean section would be minimal. Therefore, the Court opted to sanction the State's compelling interest in preserving the life of the infant.

As interesting as the legal, medical, and religious aspects of this case may be in and of themselves, what followed the Supreme Court's decision was straight out of a storybook [or the Bible]. On Jan. 26, 1981, Mrs. Jefferson submitted herself to a sonogram at the County Hospital. She said she was opposed to a caesarean section because it violated her religious beliefs, and she stated that she believed that her "faith in God would heal her."[6] Incredibly, the sonogram showed that Mrs. Jefferson's faith was perhaps justified, because her placenta *had* shifted and was no longer blocking the birth canal, indicating that normal delivery appeared likely. As a result, the attending physicians at the County Hospital determined to delay the caesarean section and attempt natural delivery of the baby.

This occurred on Feb. 10, 1981, when Mrs. Jefferson gave birth to a 7 lb. 3 oz. baby girl. The miraculous nature of this occurrence, from a strictly medical viewpoint, was noted at the time of birth by the assistant director of the County Hospital, who stated that "(t)hey used to say it's impossible (for the placenta previa condition to correct itself at such a late stage of pregnancy). They can't say it's impossible anymore."[7]

[Editorial Note: Amen.]

Notes

1. *Jefferson v. Griffin Spalding County Hospital Authority*, ___ Ga. ___ (February 3, 1981).
2. Although Mrs. Jefferson indicated to her examining physician that she would neither submit to a caesarean section nor authorize any blood transfusions, the record indicates that Mr. and Mrs. Jefferson did not attend the emergency hearing before the Court despite receiving notice of hearing.
3. "Viability" has been defined by the United States Supreme Court as the capability of a fetus to sustain life independent of the mother. *Roe v. Wade*, 410 U.S. 113 (1973). Generally, a fetus is deemed to be viable in the mother's third trimester of pregnancy.
4. *Raliegh Fitkin-Paul Morgan Memorial Hospital v. Anderson*, 42 N.J. 421, 201 A.2d 537, *cert. den.* 377 U.S. 985 (1964). See, generally, Annotation, "Patient's Right to Refuse Treatment," 93 A.L.R. 3d 67, §3 (1979).
5. *Jefferson v. Griffin Spalding County Hospital Authority, supra*, at ___ (concurring opinion, Hill, J.).
6. *Atlanta Constitution*, January 26, 1981, pp. 1-C, 3-C.
7. *Atlanta Constitution*, February 11, 1981, p. 1-B.

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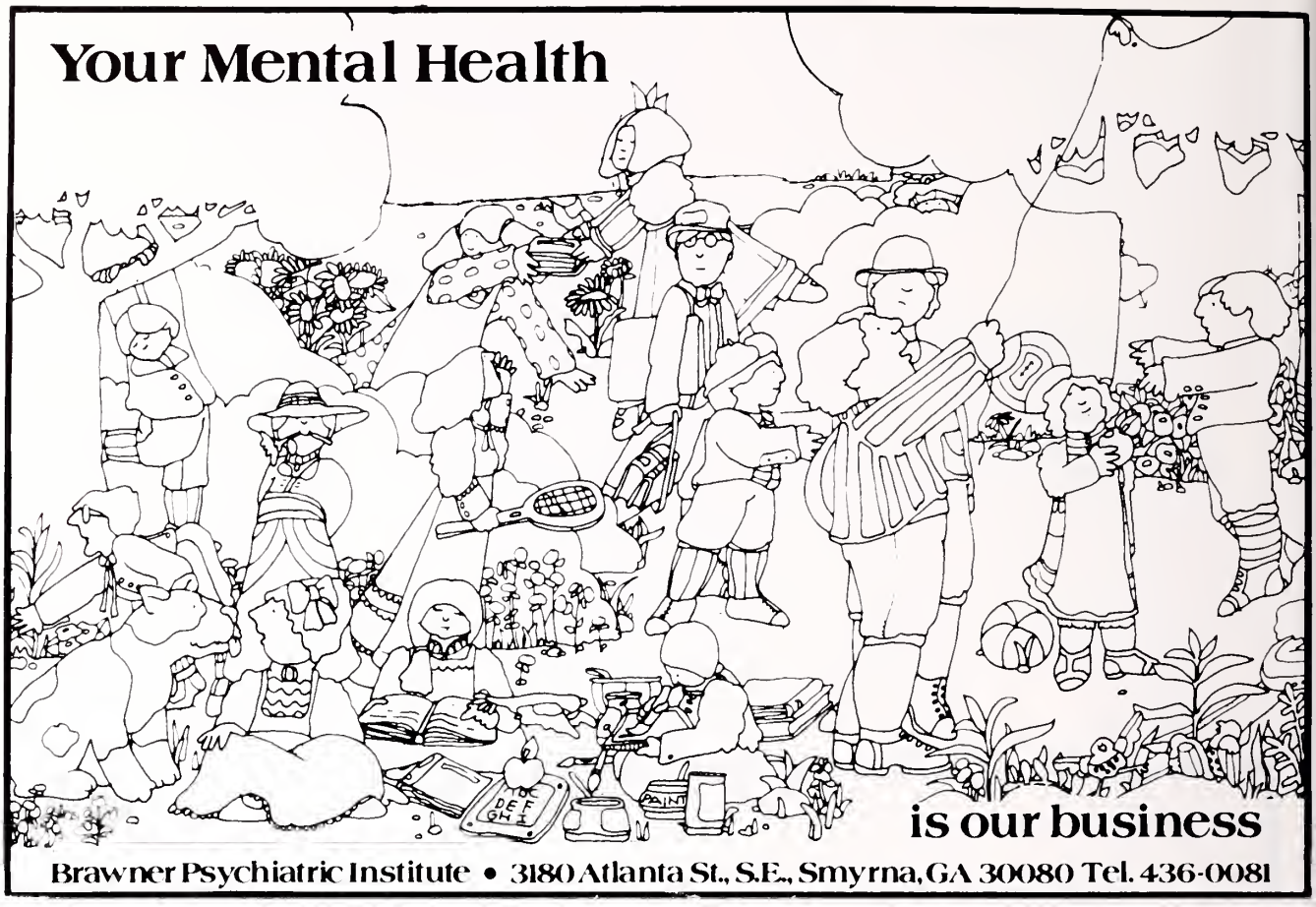
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A Hospital-Based Cancer Program

LaMAR S. McGINNIS, M.D., F.A.C.S., *Decatur**

"The secret of the care of the patient is in caring for the patient."
(Frances Peabody)

In 1932, the American College of Surgeons instituted a hospital-based cancer program with the avowed intent of improving the care of the cancer patient. This program was initially co-sponsored by the American Cancer Society. In 1957, the National Cancer Institute joined with the American College of Surgeons and the American Cancer Society in the sponsorship and financial support of this program. Their joint efforts continue today.

In 1981, nearly 900 hospitals throughout the nation have such an approved cancer program. These hospitals, representing only 15 percent of the acute-care beds in the country provide over 55 percent of the care for cancer patients. In Georgia, some 25 hospitals have approved programs (see attached list), and an additional five hospitals are actively working toward gaining approval of their programs, with five more hospitals showing a definite interest in establishing cancer programs. Fifty physicians have been appoined as Liaison Fellows-Associates throughout the state in 50 hospitals which either have approved programs or intend to establish such programs.

Why all this flurry of activity? Again the avowed intent of the program is to improve the care of the cancer patient.

What is this hospital-based cancer program? Simply put, it is a voluntary program with one major goal — decrease the morbidity and mortality of cancer patients.

How does the program hope to achieve this goal? The major elements necessary for an approved program include:

1. JCAH approval for the hospital.
2. A *multidisciplinary* Cancer Committee — actively planning, initiating, and evaluating the care of cancer patients in that institution. A Committee with clout, identifying needs and deficiencies in cancer activities in that hospital.
3. Periodic educational conferences for physicians, nurses, and other health care personnel, emphasizing the team approach to the care of cancer patients.
4. A mechanism of prospective and retrospective review of cancer-patient care in the institution to allow objective appraisal of the quality of care.
5. A cancer surveillance and end-result data system (tumor registry) that follows a cancer patient for life, to monitor the success or failure of treatment and to insure continued follow-up care.

In addition, national data bases are being established by combining reports from all 900 participating hospitals, thus gaining statistical information that is truly meaningful. To date, studies have been carried out regarding primary hepatic tumors, breast cancer, colon

* Dr. McGinnis is Georgia State Liaison Chairman, Commission on Cancer, American College of Surgeons, and Chairman of the Board, Georgia Division, American Cancer Society. His address is 365 Winn Way, Ste. 201, Decatur, GA 30030. Prepared at the request of the Georgia Division, American Cancer Society. Others wishing to contribute papers to this page are invited to send them to David B. Roberts, M.D., 2400 13th St., Columbus, GA 31906.

and rectal cancer, and prostate cancer. A study on endometrial cancer is underway.

In essence, the program benefits hospital administrators by providing an accurate measure of activity within the institution in regard to the treatment of cancer patients, and thereby provides data for administrative planning (facilities, equipment, personnel, beds, etc.). Benefits for the medical staff include providing a clear measure of institutional results in the care of cancer patients; providing readily available data for clinical studies; backing up requests for new equipment and facilities; improving professional cancer education in the institution; etc. Patients are benefited by insuring adequate follow-up for life; stimulating a multi-disciplinary approach in the treatment of cancer patients; providing initial staging of the tumor; and providing a permanent record of initial and subsequent treatment; etc.

The American College of Surgeons and the American Cancer Society strongly endorse the program and the benefits it obtains. We encourage hospitals and their medical staffs to learn about the program. To do so, please call or write either me or Charles Smart, M.D., F.A.C.S., Director of Cancer Program, American College of Surgeons, 55 E. Erie St., Chicago, IL 60611.

> *It is merely a common sense notion that every hospital should follow every patient it treats long enough to determine whether or not the treatment has been successful and then to inquire – if not, why not? – with a view to preventing similar failure in the future.* (Ernest Codman, M.D., a founder of the American College of Surgeons)

Cancer Programs Approved by the American College of Surgeons

As of January, 1981

Hospital	City	Liaison Fellow-Associates
Phoebe Putney Memorial Hospital	Albany	Grey Fountain, M.D., F.A.C.S.
Americus and Sumter County Hospital	Americus	J. Gatewood Dudley, M.D., F.A.C.S.
Crawford W. Long Memorial Hospital	Atlanta	Tom Phillips, M.D.
Emory University Hospital	Atlanta	Douglas Murray, M.D., F.A.C.S.
Georgia Baptist Medical Center	Atlanta	Eugene Harrison, M.D., F.A.C.S.
Grady Memorial Hospital	Atlanta	Jeanne Petrek, M.D.
Piedmont Hospital	Atlanta	Stephen Barnett, M.D., F.A.C.S. and M. D. Vohman, M.D.
St. Joseph's Hospital	Atlanta	Neil Perkinson, M.D., F.A.C.S.
West Paces Ferry Hospital	Atlanta	William A. Reid, M.D., F.A.C.S.
Eugene Talmadge Memorial Hospital	Augusta	Robert H. Johnson, Jr., M.D., F.A.C.S.
University Hospital	Augusta	Dan Sullivan, M.D., F.A.C.S.
The Medical Center	Columbus	David Roberts, M.D., F.A.C.S.
Hamilton Memorial Hospital	Dalton	Paul Bradley, M.D., F.A.C.S.
DeKalb General Hospital	Decatur	S. A. Wills, M.D., F.A.C.S.
Veterans Administration Hospital	Decatur	R. W. Eells, M.D.
South Fulton Hospital	East Point	Arnold Rosen, M.D., F.A.C.S.
Martin Army Hospital	Ft. Benning	Joseph C. MacDonald, M.D., F.A.C.S.
Dwight D. Eisenhower Army Medical Center	Ft. Gordon	George Powell, M.D., F.A.C.S.
Northeast Georgia Medical Center	Gainesville	Robert Tether, M.D., F.A.C.S.
West Georgia Medical Center-Enoch Callaway Cancer Clinic	LaGrange	Allen Cass, M.D.
Medical Center of Central Georgia	Macon	Robert Schoffstall, M.D., F.A.C.S.
Memorial Medical Center	Savannah	Moultrie Lee, M.D., F.A.C.S.
Tift General Hospital	Tifton	Jim Kirkpatrick, M.D., F.A.C.S.
Cobb General Hospital	Austell	Carlos Osman, M.D.
South Georgia Medical Center	Valdosta	James Mathis, M.D., F.A.C.S.

Does Coronary Bypass Surgery Prolong Life? An Incomplete Question

NANETTE K. WENGER, M.D., *Atlanta**

In evaluating the role of surgery in the management of patients with atherosclerotic coronary heart disease, one must review the medically-treated course of the illness, defining both morbidity and mortality. Clinical coronary disease is characterized by a varying sequence of serial events: nonfatal and fatal myocardial infarctions, arrhythmias, congestive heart failure, and sudden death. All of these must be assessed to determine the appropriate application of coronary bypass surgery.

The clinical course of 1214 medically-managed patients at the Duke University School of Medicine between 1969 and 1978 provides data about contemporary medical management.[1] Cardiac catheterization was done to evaluate chest pain. Patients for whom surgery was elected were excluded from the study: these included patients with at least 75% of one-, two-, or three-vessel coronary disease.

There was a 47% cumulative rate of coronary events in the 7 years of follow-up, 18% with an initial event of nonfatal infarction and 29% with sudden death. The authors' emphasis of both fatal and nonfatal ischemic events deserves reiteration: "With nonfatal infarction included as an endpoint, the incidence of total ischemic events in several subsets of patients is far greater than is appreciated when survival alone is considered." Nonfatal infarction accounted for approximately one-third of the initial cardiac events after catheterization in the total group of 1214 patients. However, in patients with one- or two-vessel disease and normal ventricular function, nonfatal infarction accounted for as much as two-thirds of the initial events. Even in patients with three-vessel disease and normal ventricular function, approximately half of the initial events were nonfatal infarctions. When survival alone is considered in these categories, a significant proportion of the ischemic events are overlooked. The appropriate question to be asked, then, differs in patients with left main, three-vessel, two-vessel, and one-vessel disease, with varying emphasis on fatal and nonfatal acute coronary episodes.

Surgery has benefits other than alteration of acute ischemic events: Angina is unquestionably improved more than with medical management: 70-90% in most series, with 50-70% of patients reporting freedom from pain. Left ventricular function improves, particularly in myocardial segments with exercise-induced ventricular dysfunction. Physical work capacity (measured objectively by exercise testing) increases, reflecting both decreased angina and improved ventricular

* Presented at the American College of Cardiology, Jefferson Medical College Symposium: "Clinical Decisions in Cardiac Surgery," October 1980, Philadelphia, Pa. Dr. Wenger is Professor of Medicine (Cardiology), Emory University School of Medicine, and Director, Cardiac Clinics, Grady Memorial Hospital, Atlanta. Her address is 61 Butler St., SE, Atlanta, GA 30303. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Miltiadis Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

function. There is a decrease in the use of medication and in readmissions to the hospital. The latter may reflect a decrease in nonfatal acute ischemic events, but must be specifically analyzed. Arrhythmias are not predictably altered.

In attempting to extrapolate from studies assessing the effect of coronary bypass surgery on longevity, several variables must be considered before these data can be applied to the management of an individual patient. Did the study patients with angina have prior myocardial infarction, which might have impaired left ventricular function? What was the ventricular functional status? Did patients have stable or progressive pain (characterized by markedly different outcomes), or did the study group include both categories? What was the operative mortality and graft patency, features that vary with the surgical center and the year of the study? How many vessels were diseased, albeit a gross determination? (The amount of myocardium supplied by obstructed arteries appears to be a far more specific determinant.) Were the medically-treated patients operable, i.e., those choosing not to undergo surgery, or were they managed medically because they were inoperable? Were significant symptoms related to medical therapy as well as to the underlying disease? What was patient acceptance of medical therapy? What was the duration of follow-up? Whereas morbidity typically entails serial events, mortality may be more prominent in later years.

As documentation of the importance of these variables, the major predictors of both nonfatal infarction and death in the Duke series[1] were progressive chest pain, number of diseased vessels, left main coronary stenosis, and left ventricular function. In patients with stable chest pain, the initial event was more commonly nonfatal, in contrast to patients with progressive pain whose initial ischemic event was more likely to be death. The number of occluded vessels was a critical determinant; with left main coronary stenosis, the preponderant initial event was fatal. With one- and two-vessel disease, there was a 67% and 50%, respectively, incidence of nonfatal initial ischemic events. As left ventricular dysfunction increased, the initial event was more likely to be fatal; with preserved ventricular function, initial events were more likely to be nonfatal ischemic episodes. Thus, 5-year follow-up of patients with normal left ventricular function showed that initial events were nonfatal in 69%, 68%, and 50%, respectively, of patients with one-, two- and three-vessel disease. Survival from an ischemic event is far more likely in patients without left main coronary obstruction and with preserved ventricular function. Increasing blood vessel obstruction and unstable pain define a poorer outlook, with more initial fatalities.

In earlier reports,[2] surgical results were compared with historic controls, usually dating from several years prior to the surgical series. For example, the Buffalo surgical patients, not subdivided by the number of vessels involved, had a 92%, 5-year surgical survival, compared with the older medical survival of 60-75%. The 5-year mortality was 27% in the medically-managed Duke series. The latter not only had the advantages of modern medical therapy, but excluded patients for whom surgical management was elected, presumably a significant number with left main coronary obstruction.

If coronary bypass surgery is to improve the rate of survival, it must also decrease sudden death, the major cause of fatality in the pre-hospital phase of infarction; Vismara et al.[3] defined a decrease in sudden death in all subgroups in the surgically-versus medically-managed patients. Exercise-induced ventricular arrhythmias, however, remain unchanged.[4]

Data from the VA Cooperative Study[5] and other trials demonstrate unquestionably that surgery for left main coronary artery obstruction prolonged life; left main obstruction is thus currently excluded from the reporting of many comparative studies. The results of surgery contrasted with operable and inoperable medically-managed patients, with comparable blood vessel involvement, are illustrated by data from Kochoukos et al.[2] With three-vessel disease, there was an 83% 3½-year survival in the operated group, 53% in the operable but medically-treated group, and 44% in the inoperable, medically-treated group. Comparable values for two-

vessel disease were 93%, 84%, and 73%, respectively. Survival with one-vessel disease was similar in medically-and surgically-treated patients and differed little from the age-matched survival of a comparable population.

The recent European Coronary Surgery Study Group report provides new insight into contemporary indications for coronary bypass surgery.[6] This study involved over 700 men under age 65, with two or more vessel involvement of at least 50% and an ejection fraction in excess of 50%. Patients with severe angina were not randomized, so these data concern only patients with mild or moderate angina pectoris. Two-year follow-up data[7] showed decreased mortality with surgically-treated, three-vessel disease, despite the fact that "medical" mortality was one of the lowest ever reported — 92.2% — possibly reflecting selection of patients with only mild or moderate angina. Even at 2 years, all surgically-treated patients had fewer symptoms and required less medication. A total of 13% of patients randomized to medical management required surgery for unacceptable symptoms.

The current study[6] reports 3- to 5-years of follow up. There is significantly improved survival of the total surgical group — 93.5% versus 84.1%. With left main disease, the figures are 92.9% versus 61.7%; and with three-vessel disease, 94.9% versus 84.8%. In addition to the persistence of the marked decrease in symptoms and drug requirements, major improvement in exercise performance occurred in the surgical patients. This was evident despite the fact that the 18% of patients randomized to medical management, who subsequently underwent surgery for disabling symptoms, were appropriately analyzed as medically-managed. Although no difference in survival was apparent in the total group of patients with two-vessel disease, patients whose two-vessel disease was characterized by proximal left anterior descending coronary artery obstruction had an 82% survival compared with those without this lesion with a 96% survival. Therefore, two-vessel disease, with proximal involvement of the left anterior descending coronary artery, must be considered similar to three-vessel disease. The European Study[6] total operative mortality was 3.5% for left main coronary disease compared with 12% in the VA study.

In Epstein et al.[8] 5-year follow-up of 150 patients with mild angina and catheterization-documented disease, mortality with one-vessel disease was about 1½% per year and two-vessel disease under 2½% per year. Although the annual mortality with three-vessel disease was 5%, patients with good exercise tolerance had a 2½% annual mortality, whereas those with poor exercise tolerance had an 11% mortality. This emphasizes that symptoms alone are not a reliable index of prognosis; even with mild symptoms, the exercise response has a profound effect on prognosis.

In the 1980s, there is increasing evidence that coronary bypass surgery prolongs life, not only in patients with left main coronary disease and three-vessel disease, but in selected patients with two-vessel disease. However, this remains an incomplete assessment of the value of surgery. The major problem in most patients with one- and two-vessel disease, and a significant number with three-vessel disease and intact ventricular function is **not** mortality but nonfatal ischemic events. Thus the incidence of these events must be compared in medically- and surgically-managed patients. This feature must be defined in addition to the previously documented benefits of decrease in angina pectoris, improvement in exercise tolerance, decrease in medication requirements, and decrease in recurrent hospitalizations to appropriately define the role of surgery in this subgroup of patients.

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URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anophylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
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Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
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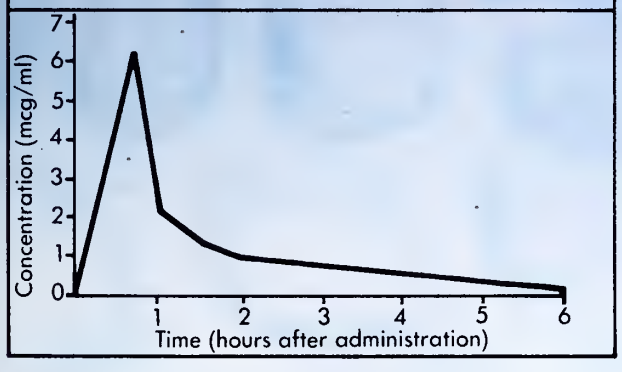
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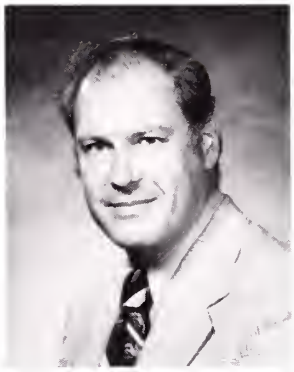
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president's letter



Continuing Medical Education

CONTINUING MEDICAL EDUCATION (CME) has become a large and increasingly important part of medicine over the past several years. Some states have requirements of documented CME for licensure. Some medical associations require certain amounts of CME for continued membership. Hospitals inquire periodically as to the CME efforts of staff member physicians. A good bit of the mail we all get consists of brochures describing various CME courses available all over the world. Physicians spend large amounts of time and money participating in CME courses. Almost all specialty societies, medical societies, and a few private businesses commit large sums of money to organize and present CME courses. The AMA has for several years offered a sort of "merit badge" in CME, the Physician's Recognition Award.

With all of this CME going on, there seems to be a surprising lack of scientific study about the educational process itself. Questions remain unanswered (or perhaps were never even considered) as to how highly trained, motivated, and intelligent professionals can best benefit from CME. What quantity of knowledge should the physician acquire and how best can this be accomplished, given the time and money at his disposal?

Should a physician be credited with CME "brownie points" for attending a course on practice management designed to improve his collection ratio? Can we learn anything significant in interrupted brief periods of self study, or must we travel 50 to 5000 miles for a few days of uninterrupted meetings or courses? Do we know how CME really works, how much and what kind is enough, and how to measure its effect?

In my view, there are almost as many questions concerning CME as there are opportunities to participate in it. I believe it is necessary, and I believe we should participate in it, but considering the vast effort put into CME, I am of the opinion that a great deal of basic information regarding the process itself, its pharmacologic mode of action, efficacy, indication, side effects, and incompatibilities is very much needed. This information is not necessarily easy to come by but should be obtainable given a proper effort.

I suspect that if we ourselves do not get this information and apply it effectively to tailor the goals and modes of CME, then very soon some FDA-like governmental bodies will want us to accept what *they* regard as the proper dose of CME, flavored, naturally, by bureaucratic tastes. This could be pretty bitter to swallow and might in some instances have to be taken parenterally.

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PERSONALS

Fourth District

William E. Silver, M.D., of Atlanta, presented a paper at the John Dickinson Advanced Facial Soft Tissue Surgery Course sponsored by the American Academy of Facial Plastic and Reconstructive Surgery in February, 1981. His paper was entitled "Cosmetic Facial Contouring." He also participated in a panel on the "Treatment of Acute Soft Tissue Injuries of the Face."

Fifth District

Atlanta urologist, **Milton S. Goldman, M.D.,** has opened a part-time practice in Dahlonega.

Thomas S. Harbin, Jr., M.D., of Atlanta, was the guest speaker at the annual clinical day of the Department of Ophthalmology, University of Rochester, and the Rochester Ophthalmological Society on April 10. He spoke on chronic angle closure glaucoma and neovascular glaucoma as well as the use of the laser to treat anterior segment disease. Also in February of this year, Dr. Harbin was the guest speaker for the Jacksonville Ophthalmological Society. His topic was neovascular glaucoma.

In memory of Atlanta surgeon, **Arnold Neistadt, M.D.,** a group of physicians and friends have founded an annual lectureship in his name. The Neistadt Lectureship will feature a prominent physician to address Atlanta physicians at Saint Joseph's Hospital in North DeKalb. Charles G. Rob, M.D., professor of surgery at East Carolina School of Medicine, was the speaker for this year's program held May 7.

Seventh District

Raiden Dellinger, M.D., of Rome, has retired from practicing general surgery after 36 years of service.

Mark A. Gould, M.D., Medical Director for Brawner Psychiatric Institute in Smyrna and Psychiatric Institute of Atlanta, was elected President-elect of the National Association of Private Psychiatric Hospitals at their annual meeting in Florida.

In a joint meeting of the Hamilton Memorial Hospital Medical Staff and the Whitfield-Murray County Medical Auxiliary, the two organizations presented a plaque to **Truman W. Whitfield, M.D.,** for his 35 years of dedicated service to the citizens of Dalton and Whitfield County.

Eighth District

Blackshear pediatrician, **Alfred L. Davis, Jr., M.D.,** spoke at a recent meeting of the Childbirth and Parent Education Association. His topic was "Medical Emergencies — When to Call the Doctor."

Lanier Harrell, M.D., of Jesup, recently spoke to the Jesup Kiwanis Club. His lecture was on medical achievements in Worth County.

Ninth District

The *Atlanta Constitution* in the April 12 issue published an article honoring **Guerrant Perrow, M.D.,** of Jasper.

Arthur Singer, M.D., of Toccoa, a radiologist, retired earlier this year.

Dr. and Mrs. Sam Vickery, of Commerce, were part of a medical team which recently spent 8 days in Kingston, Jamaica, treating people in a poverty section of the city.

Tenth District

William V. Tillery, M.D., was elected chief of staff at St. Joseph Hospital in Augusta. **Joe David Christian, Jr., M.D.,** was elected vice chief of staff, and **Luther M. Thomas, Jr., M.D.,** is secretary. All three physicians practice in Augusta.

SOCIETIES

On April 8 the **Ninth District Medical Society** held a continuing medical education seminar entitled, "Diabetes Mellitus in 1981." The seminar was cosponsored by the Northeast Georgia Medical Center.

DEATHS

J. Calvin Sandison

Orthopedic surgeon, J. Calvin Sandison, M.D., 82, died March 25, 1981. He was nationally recognized as a pioneer in orthopedic surgeries and procedures such as pinning broken hips and devising a method to anchor a broken upper jaw to the skull. He was a former medical consultant to such personalities as Capt. Eddie Rickenbacker, Margaret Mitchell, and Bobby Jones.

Dr. Sandison graduated from Harvard Medical School and continued his studies in plastic, general, and orthopedic surgery at Barnes Hospital in St. Louis. There he studied under Vilray Blair, M.D., who is considered the "father" of plastic surgery.

In 1973, at the request of the Georgia Department of Human Resources, Dr. Sandison developed an orthopedic department at Central State Hospital in Milledgeville. He was a Rockefeller scholar, a member of Phi Beta Kappa, and author of many medical articles. He was a member of the Medical Association of Atlanta, the Medical Association of Georgia, the American Medical Association, the Clinical Society of Atlanta, the Southern Medical Society, and a Fellow in the American Academy of Orthopedic Surgeons.

Survivors include his wife, a daughter, a son, a stepdaughter, two stepsons, a sister, and a brother.

Jonas Robitscher

Jonas Robitscher, J.D., M.D., 60, died March 25, 1981. He was considered a pioneer in the field of forensic psychiatry.

Dr. Robitscher, who was also a lawyer, authored *The Powers of Psychiatry,* a controversial and comprehensive critique on the abuses of psychiatry today. He was the first occupant of the Henry R. Luce Chair in Law and the Behavioral Sciences at Emory University, and he held it for the past decade. Dr. Robitscher wrote extensively in the fields of forensic medicine and forensic psychiatry. In addition to the above mentioned book, he wrote *Pursuit of Agreement: Psychiatry and the Law,* and edited and contributed to *Eugenic Sterilization.*

He received his J.D. degree from The George Washington University School of Law in 1948 and his M.D. degree from The George Washington University School of Medicine in 1955. He was director of the Legal Psychiatry Program at the University of Pennsylvania School of Medicine and lecturer in law at Villanova University Law School in Philadelphia. In 1972 he moved to Atlanta where he was a professor in both the schools of law and medicine. He also had a clinical practice in psychiatry.

In 1976 Dr. Robitscher received the American Psychiatric Association's Issac Ray Award for outstanding work in legal psychiatry. He delivered the Issac Ray Lectures on the topic "The Uses and Abuses of Psychiatry" at The George Washington University in 1977, and in 1978 delivered a follow-up lecture on the same subject at the Clarke Institute in Toronto. In 1979 he received the George Washington University's Alumni Award. The American Academy of Psychiatry and the Law presented him the Golden Apple Award for achievement in the field of forensic psychiatry in 1980.

Survivors include his wife, two daughters, and a son.

Contributions may be made in Dr. Robitscher's name to the Emory University Law School Fund for student scholarships.

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STYLE — Ordinarily articles should not exceed 3,000 words. Only under exceptional circumstances will articles of over 4,000 words be published. Footnotes, bibliographies, and legends should be typed on separate sheets, double-spaced. Bibliographies should conform to the following style: name of author (with initials), title of article, name of periodical, date, volume (number, if available), and pages.

> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

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Quiet, relaxed community seeks Director for moderate volume emergency department located in central Georgia. Physician chosen will enjoy an excellent compensation plus bonus for director's responsibilities. Professional liability insurance provided. Flexible scheduling allows free time for hunting and fishing in the surrounding area. For further details, send curriculum vitae in confidence to Mary Obsitnik, 9100 Purdue, Ste. 119, Indianapolis, IN 46268; or call collect 317-875-7518.

Internist, board eligible/certified generalist wanted to join established group of 3 internists and 3 surgeons. Excellent Southeastern Tennessee location. Starting salary negotiable leading to full corporate participation. Box 6-A, c/o the *Journal*.

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Family Physicians desperately needed to locate in West Central Alabama rural communities, one hour from Birmingham. Faculty appointment with Family Practice Center at University of Alabama if qualified. Join established practice or work individually. Salary of $42,000 to $55,000 guaranteed until practice is self-sufficient. Generous fringe benefits include life, disability, health, retirement, and malpractice insurance, two weeks continuing education, and three weeks annual leave. All equipment, including X-rays and lab, furniture, and supplies provided. If invited to visit, all expenses will be paid. All moving expenses covered. Write Health Development Corporation, P. O. Box 1486, Tuscaloosa, Alabama 35403, or telephone Frank Cochran *collect* at (205) 758-7545 for more information.

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SITUATION WANTED

Physician wants fulltime position in general practice, emergency room, industrial clinic, or treatment of substance abuse. Contact Box 6-B, c/o the *Journal*.

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Ridgeview Institute is a private, non-profit, fully accredited psychiatric hospital located less than 20 minutes from downtown Atlanta. Ridgeview offers three individual, fully-accredited, separately-housed programs in alcohol and drug treatment, adult, and adolescent psychiatry.

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Alcohol & Drug Program

This program offers a multi-dimensional treatment and rehabilitation program aimed at helping those afflicted with the disease of alcoholism or drug addiction. A variety of groups and activities are led by trained, experienced addiction counselors and therapists. Alcoholics Anonymous and Narcotics Anonymous are intrical parts of the program.

Adult Psychiatric Program

Under the psychiatrist's leadership, patients on the adult unit are treated individually for depression, anxiety, schizophrenia, manic depressive illnesses, personality disorders and other similar disfunctions. The physician and treatment team work closely together on the patient's assets as well as problems in the social, psychological and physical areas.

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This unique program offers a wide range of treatment modes and emphasis is placed on resolving the emotional, behavorial and educational difficulties involving this age group. A fully accredited school lets the young people continue their education during the inpatient process. Classes are small and credits earned at Ridgeview are transferred back to their schools.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures, tetanus, anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL. Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients, should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V., inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist, use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest, concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least ⅓, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence, can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam/Roche), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE: Although promptly controlled, seizures may return, re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.

INJECTABLE. Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualized for maximum beneficial effect.

ORAL—*Adults.* Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg *b.i.d.* to *q.i.d.*, acute alcohol withdrawal, 10 mg *t.i.d.* or *q.i.d.* in first 24 hours, then 5 mg *t.i.d.* or *q.i.d.* as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg *t.i.d.* or *q.i.d.*; adjunctively in convulsive disorders, 2 to 10 mg *b.i.d.* to *q.i.d. Geriatric or debilitated patients:* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg *t.i.d.* or *q.i.d.* initially, increasing as needed and tolerated (not for use under 6 months).

INJECTABLE. Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children, *administer I.V. slowly,* for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary, in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred), repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure, if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M., in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure, employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

Supplied: Tablets, 2 mg, 5 mg and 10 mg, bottles of 100 and 500, Tel-E-Dose® (unit dose) packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10. Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1, Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

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During the past several years, I have heard my name mentio in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspap magazines, and yes, best-sellers. Lately, whenever I see or hear t phrases "overmedicated society," "overuse," "misuse" and "abuse my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium® (diazepam/Roche) ℞, please see the preceding page.
Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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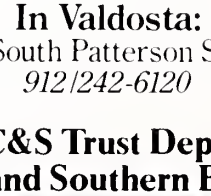
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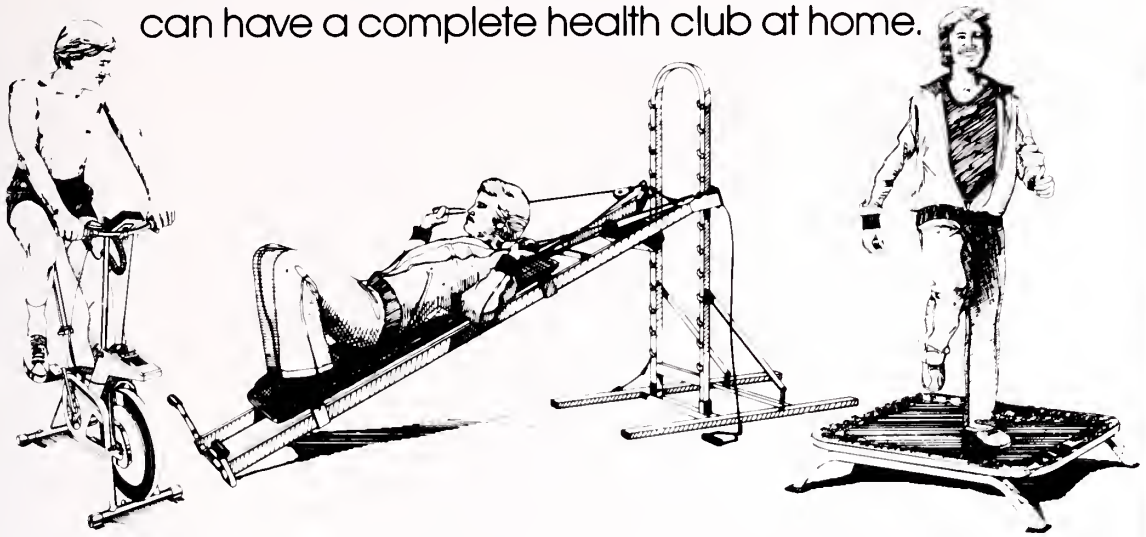
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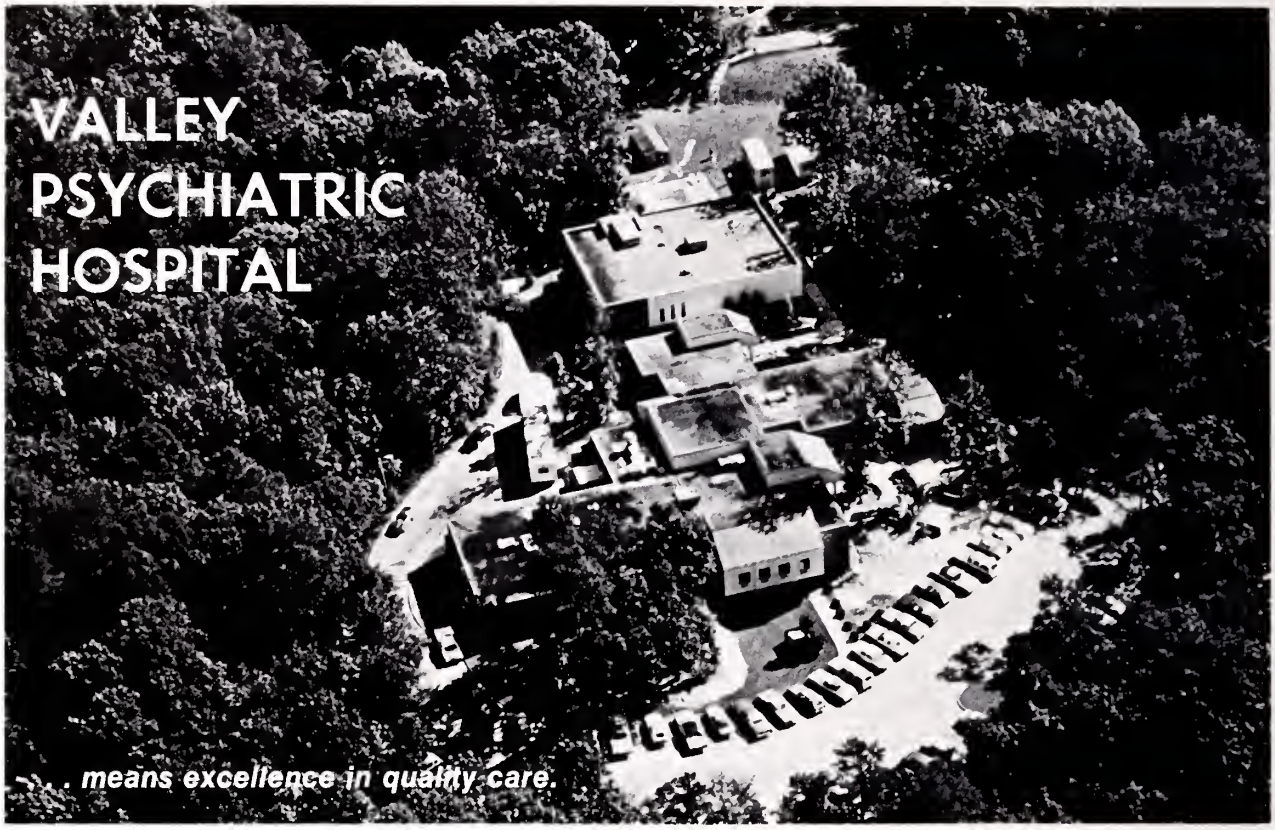
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Valley is a 100-bed private psychiatric hospital nestled in an 81-acre wooded area on the outskirts of Chattanooga, Tenn. Structured clinical programs include:

ADULT PSYCHIATRIC PROGRAM—Admission to the adult program at Valley involves diagnostic procedures such as complete physical examination, psychological testing, psychiatric evaluation and review of social history. Based upon results of these initial tests, the patient's attending psychiatrist together with members of the psychiatric treatment team develop a total treatment plan which may include group therapy in addition to individual therapy, occupational and recreational therapy as well as family involvement.

Weekly meetings of the treatment team are held to modify the original treatment plan based on the patient's progress while in the hospital.

CHILD AND ADOLESCENT PROGRAM—Valley maintains a child and adolescent program for youngsters undergoing specific difficulties in growth and development. This program provides individual as well as group therapy and includes activities in art, sports and field trips of special interest to this age group.

An active school experience is part of this program. Individual lesson plans, administered by special education teachers and worked out with the children's own school district educators, keep them from falling behind peers in their own community school. Because the student is allowed to move at his own pace in an individualized program, he develops confidence and self-discipline.

The Valley program regards adolescence as a psychological growth process—not a disease—so that time, skill and experience are critical ingredients of the treatment.

SUBSTANCE ABUSE PROGRAM—This treatment team is trained and experienced in the treatment of alcoholics and other drug-dependent persons.

A number of approaches are used in the treatment of alcoholism and/or drug abuse: individual and group therapy, substance abuse counseling, lectures, communication skills training, pastoral counseling, physical and recreational therapy, the 12 Steps of Alcoholics Anonymous, Antabuse therapy, and various forms of adjunctive therapy. Whenever possible, family members are urged to become involved in the patient's treatment through out-patient family and individual counseling.

REFERRAL—Valley maintains a 24-hour, seven-day-a-week emergency referral service. Referrals are accepted from psychiatrists and other physicians, the clergy, social workers, mental health professionals, social agencies, self and family.

Valley is fully accredited by the Joint Commission on the Accreditation of Hospitals.

Dr. Robert G. Aug, M.D., Medical Director

Dr. G. Michael Schmits, M.D., Medical Director of the Child and Adolescent Program

Dr. Kenneth E. Shoemaker, M.D., Medical Director of the Substance Abuse Program

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THE COVER

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Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ℞, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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MEDICAL MEETING CALENDAR

JULY

19-24—*Asheville, NC;* **Southern Ob/Gyn Seminar;** Contact: George Schneider, M.D., Southern Ob/Gyn Seminar, Inc., Ochsner Clinic, 1514 Jefferson Hwy., New Orleans, LA 70121. PH:504/838-4000.

22-25—*Hilton Head Island, SC;* **Fourth Annual Symposium on Contemporary Clinical Neurology;** Category 1 credit; Contact: Div. of CME, Vanderbilt Sch. of Med., Nashville, TN 37232. PH:615/322-2716.

27-29—*Kiawah Island, SC;* **Pediatrics;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

27-Aug. 1—*Atlantic Beach, NC;* **Diagnostic Radiology;** Contact: Donald R. Kirks, M.D., Box 3808, Duke Univ. Med. Ctr., Durham, NC 27710.

31-Aug. 2—*Vail, CO;* **Ear, Nose, and Throat for the Family Physician;** Contact: E.N.T. Symposium, 950 E. Harvard, Ste. 500, Denver, CO 80210. PH:303/744-1961.

AUGUST

3-7—*Hilton Head Island, SC;* **Your Practice, Your Money, Your Family;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

16-22—*Atlanta;* **Recent Advances in Internal Medicine and Internal Medicine Board Review;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 69 Butler St., SE, Atlanta 30303. PH:404/588-3534.

20-23—*Chicago, IL;* **American College of International Physicians Meeting;** Contact: American College of International Physicians, 3030 Lake Ave., Ft. Wayne, IN 46805.

21-22—*Asheville, NC;* **Therapy of Schizophrenia** (Sponsored by the Ga. Psychiatric Assn.); Category 1 credit; Contact: Harold L. McPheeters, M.D., 130 Sixth St., NW, Atlanta 30313. PH 404/875-9211.

26—*Atlanta;* **Media: Computer Utilization for Health Professionals;** Contact: Michael S. Rogers, College of Health Sciences, Ga. State Univ., University Plaza, Atlanta 30303. PH: 404/658-3067.

29-30—*Callaway Gardens;* **Joint Interim Meeting of the Georgia and Alabama Societies of Anesthesiologists;** Contact: C. F. Johnson Jr., M.D., Ga. Society of Anesthesiologists, MCG, Augusta 30912. PH:404/828-3871.

30-Sept. 3—*Atlanta;* **Demonstrations in Percutaneous Transluminal Angioplasty (PTA) VI;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

SEPTEMBER

9-11—*Atlanta;* **Update in Cardiology — Cardiology Board Review Program;** Contact: Registration Secretary, Extramural Programs Dept., Amer. College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20014. PH:301/897-5400.

10-11—*Atlanta;* **Handicapping Conditions in Infancy: Identification, Habilitation, Prevention;** Contact: R. Dwain Blackston, M.D., DeKalb Health Dept., 440 Winn Way, Decatur 30030.

11—*Atlanta;* **Diabetic Retinopathy Course;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

14-17—*New Orleans, LA;* **Amer. College of Emergency Physicians Meeting;** Contact: A. E. Auer, Exec. Dir., P.O. Box 61911, Dallas, TX 75261.

16-18—*Atlanta;* **The State of the Art and the Science of Fitness and the Disabled;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

17-18—*Nashville, TN;* **Medical Staff Leadership Conference;** Category 1 credit; Contact: Jeanette Stone, Southern Medical Assn., P.O. Box 2446, Birmingham, AL 35201. PH:205/323-4400.

18-19—*Atlanta;* **Ocutome Workshop;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

19-25—*Warwickshire, England;* **Radiology in Stratford-On-Avon** (Sponsored by the University of Connecticut); Contact: D. Beatty Crawford, Dept. of Radiology, Univ. of Connecticut Health Ctr., Farmington, CT 06032.

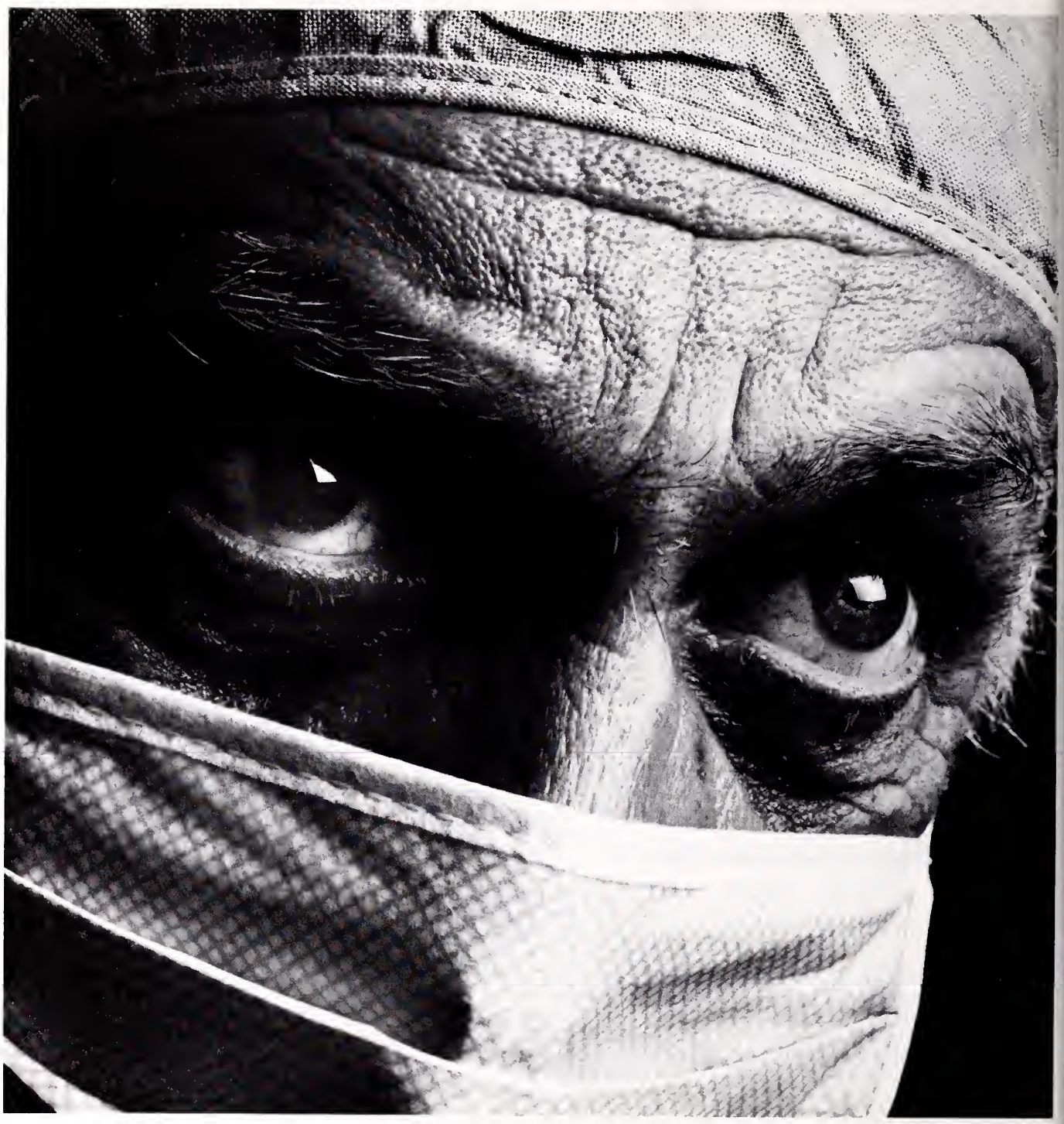
20-23—*New Orleans, LA;* **American Academy of Facial Plastic and Reconstructive Surgery;** Contact: E. G. McCollough, M.D., 1516 S. 20th St., Birmingham, AL 35205.

20-24—*New Orleans, LA;* **American Academy of Otolaryngology Meeting;** Contact: Wesley Bradley, M.D., American Academy of Otolaryngology, 15 2nd St., SW, Rochester, MN 55901. PH:507/288-7444.

23-25—*Savannah;* **Neonatology;** Category 1 credit; Contact: Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

25-27—*Savannah;* **33rd Annual Meeting and Scientific Sessions;** Category 1 credit; Contact: Sherce Gubernik, Amer. Heart Assn., Ga. Affiliate, 2581 Piedmont Ave., NE, Atlanta 30324. PH:404/261-2260.

28-30—*Augusta;* **Critical Care Nursing;** Category 1 credit; Contact: Div. of Cont.Ed., MCG, Augusta 30912. PH:404/828-3967.



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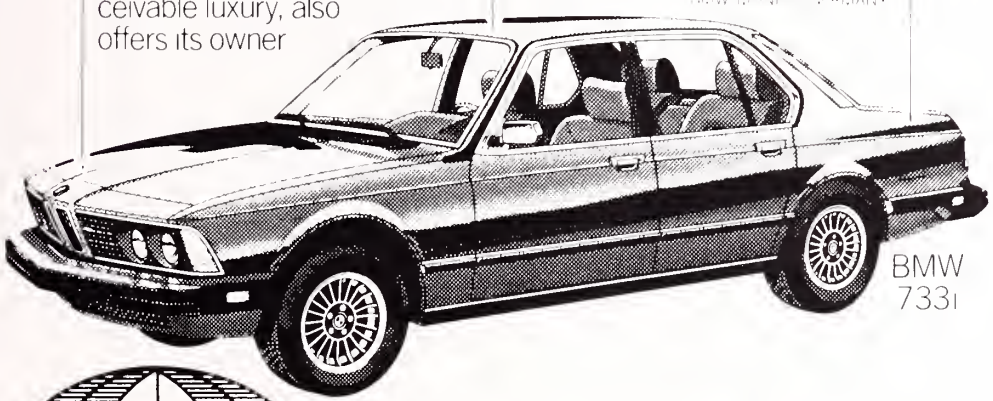
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Callaway Gardens hosted the 1981 Annual Business Meeting

Highlights of the 1981 Annual Session

THE 1981 ANNUAL SESSION of the Medical Association of Georgia (MAG) was held at Callaway Gardens May 7-9. The 127th Annual Session was attended by 404 persons, including Delegates, Alternate Delegates, members, Auxilians, and guests. Forty-six county medical societies were represented.

L. Newton Turk, III, M.D., a thoracic surgeon from Atlanta, was installed as president. Charles D. Hollis, Jr., M.D., an internist from Albany, was elected president-elect.

Highlights of the 1981 House of Delegates are presented here. A more complete summary follows.

Awards

MAG's 1981 recipient of the Hardman Cup Award was presented to Julian Quattlebaum, Sr., M.D., of Savannah. The award is presented to the physician "who has solved any outstanding problem in public health or made any discovery of medicine or surgery or such contribution to the science of medicine." Dr. Quattlebaum practiced surgery for over 50 years and is a pioneer in liver surgery and noted for his work in massive liver resection.

Harrison L. (Jack) Rogers, Jr., M.D., of Atlanta, received the 1981 Distinguished Service Award. The award has been presented only 16 times since its creation some 24 years ago.

John M. (Pepper) Martin, M.D., of Augusta, was honored as the 1981 recipient of the Civic Endeavor Award. Dr. Martin was described as "exemplifying the best tradition of the medical profession by his contributions to the civic life in his community and the state."

Abraham Herman Germain, M.D., of Jonesboro, was honored as the Family Physician of the Year. The award is given annually at the MAG House of

Delegates, and the selection is made by the Georgia Academy of Family Physicians.

Self-Insurance

The House supported the establishment of the MAG Mutual Insurance Company. The company will be a physician-owned, professional liability insurance corporation. The new company will be asking each physician who wishes to participate in the company to invest $1,500 as a condition for insuring. It expects to have 2,000 initial policy holders with $3 million in capital needed to start the corporation.

MAG Budget

The House adopted a budget of $1,474,274 for 1981-82, an increase of $117,000 over 1980-81. MAG's fiscal year is from June 1 to May 31. Dues will remain at $225 for the fourth consecutive year despite double-digit inflation over the last several years.

Specialty Societies

The House endorsed recommendations aimed at bringing the specialty societies closer to the MAG. In calling for a closer liaison between the specialty societies and the parent organization, MAG will make available to any specialty society administrative services (bookkeeping, secretarial, dues billing, etc.) on a contract basis. The Georgia Society of Ophthalmology has already taken advantage of such an offer and that society along with staff is housed in the MAG headquarters office.

New Purposes of the Association

The House adopted new purposes for the Association to read as follows: (a) to bring together physicians of Georgia of common professional background in a cohesive organization, and to unite with other such associations in other states to form the American Medical Association; (b) to serve its membership; (c) to promote the art and science of medicine among its members for the benefit of the citizens of Georgia; (d) to maintain and assure the highest quality of medical care by its members; (e) to represent its membership faithfully in dealing with government, other organizations, and the public; and (f) to adhere to the Principles of Medical Ethics set forth by the American Medical Association.

Medical Assistants

The House called for the creation of a special liaison committee to work with the Georgia State Society of the American Association of Medical Assistants (GSS/AAMA). It further recommended all MAG members to encourage their employees to become members of the GSS/AAMA. Medical assistants were defined as the doctor's front office personnel so as not to be confused with what are known as physicians' assistants.

Medical Practice

The House approved the development of a model waiver form to be distributed to the membership and opposed a reimbursement mechanism known as the Diagnosis Related Group System.

Nursing

The House agreed that every effort should be made to help eliminate the nursing shortage and improve patient care by urging the continuation of all four training alternatives for nurses; by developing mechanisms for working with nurses to resolve problems related to working conditions; and by encouraging efforts to assure that practicing nurses have individual accountability for the nursing care of each patient.

Death Penalty

The House opposed physician involvement in the death penalty and agreed that this position be brought to the attention of the Governor and the state legislature.

HMOs, HSAs, PSROs

The House unanimously agreed to ask President Reagan and Congress to cease funding of additional HMOs (Health Maintenance Organizations) and seek repeal of the law authorizing expenditures for federal funds supporting HMOs. The House also called for a cessation of HSAs (Health Systems Agencies) and the removal of funding for PSROs (Professional Standards Review Organizations).

Physicians' Assistants and Nurse Practitioners

The House called for the ending of funding for training programs for so-called "physicians' assistants" and "nurse practitioners."

AMA/ERF

The House heard a report from the American Medical Association — Education Research Foundation which presented over $18,000 in unrestricted grant money to Georgia's three existing medical schools. The monies were the results of fund raising activities of the Auxiliary to the AMA.

Health Care in the Jails

The House approved funding the continuance of MAG's Health Care in the Jails Project to the tune of some $35,000. Funding has ceased from the LEAA (Law Enforcement Assistance Administration) with the Reagan Administration's budget cutbacks. The House felt the program is of such importance to underwrite the total program if grant funding is not available from other sources.

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A Summary of the Business of the MAG's 1981 Annual Meeting

EDITOR'S NOTE: At its scheduled meeting in February, 1981, the MAG Executive Committee approved two recommendations made by *Journal* editor, Edgar Woody, M.D., regarding publication of the Proceedings of the House of Delegates. In recent years, the cost of publishing the proceedings as a regular issue of the *Journal* has risen sharply. To offset this rising cost, Dr. Woody recommended that a brief summary of the business of the House of Delegates be published in a regular issue of the *Journal* as a special article. His second recommendation was for a more complete record of the House proceedings to be published as a Supplement to the *Journal* and sent to all Delegates, Alternates, county medical societies, and Board of Directors' members. Additional copies on a limited basis would be available to other MAG members on request. This Supplement would serve as an Archives of the Association.

The following article is a brief summary, then, of the business conducted at the 1981 Annual Session.

The First General Session of the 1981 Annual Business Meeting of the Medical Association of Georgia (MAG) was called to order by the President, H. Hilt Hammett, Jr., M.D., of LaGrange, at 7:10 p.m. in the Willow and Magnolia Rooms of the Callaway Gardens Inn.

Dr. Hammett introduced the Reverend Gilbert Ramsey, of the St. Luke United Methodist Church of Columbus, who delivered the invocation. The National Anthem was led by Auxilian, Mrs. Sammie Dixon of Tifton, along with the Pledge of Allegiance. Dr. Hammett then introduced the President-Elect of MAG, L. Newton Turk, III, M.D., of Atlanta. Dr. Turk addressed the House of Delegates during the closing session on Saturday.

Dr. Hammett read the names of MAG members who had died since the 1980 Annual Session. They were: Samuel A. Anderson, Atlanta; Harry D. Arnold, Atlanta; George A. Billinghurst, Aiken, S.C.; John R. Bottomy, Atlanta; William M. Cason, Atlanta; James C. Coberly, Decatur; H. J. Copeland, Griffin; Charles E. Demby, Atlanta; G. A. Duncan, Decatur; E. H. Etheridge, Winder; William W. Evans, Blairsville; F. G. Ferrell, Macon; Malcolm E. Fishback, Augusta; R. M. Flowers, Columbus; O. D. Gilliam, Sr., Columbus; Benjamin P. Gilbert, Gainesville; Fred E. Goldwasser, Alma; E. L. Graydon, Atlanta; James F. Green, Villa Rica; Edward K. Howard, Columbus; I. W. Joines, II, Atlanta; Inju Kang, Camilla; Ruskin King, Savannah; Albert G. Leroy, Thomson; Moreno Y. Levy, Atlanta; Harry C. Lyon, Roswell; R. H. McDonald, Newnan; William C. McGeary, Jr., Madison; Estelle M. McNiece, Atlanta; Arnold Merritt, Marietta; Marvous E. Motellar, Atlanta; Homer E. Nash, Sr., Atlanta; Arnold Neistadt, Marietta; John (Jack) C. O'Neill, Savannah; Irvine Phinizy, Augusta; James W. Reid, Thomasville; C. H. Richardson, Jr., Macon; David Robinson, Savannah Beach; Jonas Robitscher, Atlanta; A. A. Rogers, Commerce; J. Calvon Sandison, Atlanta; A. F. Saunders, Valdosta; T. G. Smaha, Griffin; Robert E. Talley, Columbus; Owen K. Tidwell, Monroe; J. W. Watkins, Jr., Riverdale; J. F. Yarbrough, Atlanta.

At the conclusion of the memorial service, Dr. Hammett introduced Mrs. Milton B. (Ann) Satcher, President of the Auxiliary to the MAG, who addressed the House and gave a slide presentation outlining the Auxiliary's activities for 1980-81.

Mrs. Satcher welcomed the President of the American Medical Association's Auxiliary, Mrs. John F. Vaughan, and Mrs. Charles Prater of Jellico, Tennessee, President of the Women's Auxiliary to the Southern Medical Association.

Fifty-Year Certificates

Dr. Hammett then announced that the recipients of the Fifty-Year Certificates and Pins would be: Stephen T. Barnett, Jr., Atlanta; Needham B. Bateman, Atlanta; J. K. Bleich, Atlanta; James L. Bush, Dublin; F. B. Clark, Austell; Murphy K. Cureton, Lafayette; L. M. Freedman, Savannah; Charles E. McArthur, Cordele; William C. Mitchell, Smyrna; Joseph C. Read, Atlanta; Howard K. Sessions, Sumner; John L. Stapleton, Columbus; Eugene L. Ward, Gainesville; and O. C. Wynn, Waycross.

Certificates of Appreciation

William D. Logan, Jr., M.D., Secretary, announced that Certificates of Appreciation were awarded to: H. Hilt Hammett, Jr., M.D., LaGrange, for serving as President of the MAG during the 1980-81 year; S. William Clark, Jr., M.D., Waycross, for serving as First Vice-President of the MAG for the 1980-81 year; Mrs. Milton B. (Ann) Satcher, Atlanta, for serving as President of the Auxiliary to the MAG for the 1980-81 year; John P. Heard, M.D., Decatur, for serving as Director for the DeKalb Medical Society from 1978 to 1981; Roy W. Vandiver, M.D., Decatur, for serving as Alternate Director from the DeKalb Medical Society from 1978 to 1981; Charles D. Hollis, Jr., M.D., Albany, for serving as Chairman of MAG's Third Party Relations Committee from 1975 to 1981; A. Cullen Richardson, M.D., Atlanta, for serving as Chairman of MAG's Disabled Doctors Committee from 1976 to 1981; William J. Rawls, M.D., Decatur, for serving as Chairman of the MAG Committee on Physicians' Assistants from 1977 to 1981 and as Chairman of the Special Ad Hoc Committee to Study House of Delegates' Action on Physicians' Assistants in 1979; Edwin C. Evans, M.D., Atlanta, for serving as Chairman of the MAG Committee on Scientific Assembly from 1979 to 1981; Arthur J. Merrill, Jr., M.D., Atlanta, for serving as Chairman of the MAG Scientific Assembly from 1979 to 1980; and Representative William J. (Bill) Lee, Forest Park, for serving as Chairman of the House Rules Committee of the Georgia General Assembly in 1981.

Life Members

Dr. Hammett then announced that the following members had been awarded life membership in MAG: E. B. Agnor, Atlanta; Edward L. Askren, Jr., Atlanta; William L. Barton, Macon; Ralph O. Bowden, Savannah; Charles E. Brown, Atlanta; Roland A. Brown, Macon; F. P. Calhoun, Jr., Atlanta; F. B. Clark, Austell; Braswell E. Collins, Macon; Charles E. Dowman, Atlanta; Cordelia K. Dowman, Atlanta; J. L. Gallemore, Perry; M. M. Hagood, Marietta; Milford B. Hatcher, Macon; Byron J. Hoffman, Atlanta; Frank M. Houser, Sr., Macon; James H. Litton, Tucker; Robert F. Mabon, Atlanta; Robert W. McAllister, Macon; Lewis H. McDonald, Atlanta; Samuel E. Patton, Macon; Marta Pruce, Atlanta; Joseph L. Rankin, Atlanta; C. R. A. Redmond, Savannah; Ruben Reifler, Macon; Joe S. Robinson, Macon; Thomas Ross, Macon; C. N. Scheinbaum, Atlanta; William P. Warner, Atlanta; and Alton F. Williams, Savannah.

FIRST SESSION, HOUSE OF DELEGATES

The First Session of the MAG House of Delegates was called to order by the Speaker Jack F. Menendez, M.D., of Macon, at approximately 9:00 p.m. in the Willow and Magnolia Rooms of the Callaway Gardens Inn. The Speaker extended greetings to all Delegates and Alternates and briefly outlined the responsibilities of the House and the procedure to be followed during the 1981 Annual Business Meeting.

The Speaker called for a report from the Credentials Committee regarding delegates in attendance. Dr. A. D. Muse of Athens reported that 127 delegates from 37 component medical societies were present, and accordingly, announced that a quorum of the House was present. A complete list of those attending will be published in the Supplement, as will a list of all those appointed to committees.

Memorial Resolutions

The Speaker presented three resolutions in memory of the following physicians and they were approved unanimously: David Robinson, Tybee Island; John O'Neal, III, Savannah; and Ruskin King, Savannah.

SECOND SESSION, HOUSE OF DELEGATES

The Second Session of the House of Delegates was called to order by the Speaker, Jack F. Menendez, Macon, at 10:00 a.m. on Saturday, May 9, in the Willow and Magnolia Rooms of the Callaway Gardens Inn.

Following preliminary announcements, Dr. Harrison L. (Jack) Rogers of Atlanta, the current Vice Speaker of the AMA House of Delegates, addressed the House. Dr. Rogers becomes Speaker of the American Medical Association's House of Delegates, June, 1981.

REFERENCE COMMITTEE REPORTS

Summary of House Actions on the Committee on Constitutions and Bylaws

Major actions resulting from the Reference Committee on Constitution & Bylaws included the creation of what will be known as the Judicial Council. The Judicial Council replaces the Standing Committee on Professional Conduct and Medical Ethics. The Council will serve as a Board of Censors, take over the duties of the Professional Conduct and Medical Ethics Committee, and will make recommendations to the Association regarding membership.

Members serving on the Judicial Council were nominated by the President and elected by the House. They are: Fleming L. Jolley, Brunswick; John (Pepper) Martin, Augusta; Hugh F. Smisson, Macon; Robert B. Copeland, LaGrange; and John D. Watson, Jr., Columbus.

The Purposes of the Association were changed by the House as a result of a recommendation of the Ad Hoc Bohler Committee. The new Purposes are enumerated in the "Highlights" portion of the House's actions elsewhere in this *Journal*.

Several Bylaw amendments were approved. These include: bringing the Bylaws into conformity with MAG's policy on the sliding dues schedule for physicians reaching retirement age; removing the Intern/Resident membership category from Associate Membership to Active Membership; clarified the voting privileges of Associate members; clarified the section dealing with physicians judged guilty of crimes of moral turpitude or convicted of a felony as to how to once again become a member of the Association; voted to give greater participation at the Board of Directors meetings to the second vice-president and the vice-speaker by giving them voting privileges; and disallowed a member of more than one county medical society to be counted as a Delegate or Alternate on more than one county society's list.

Several new amendments to the Constitution were proposed which must lie on the table for 1 year before being voted on by the House. The Constitution also requires that such amendments appear in the *Journal*. These amendments are as follows:

Article II — Objectives of the Association

The objectives of the Association are to promote the science and art of medicine and the betterment of public health as provided for in the Bylaws.

Article VI — Board of Directors — Section 1 — Composition

The Board of Directors shall be comprised of those officers, directors, and alternate directors as provided for in the Bylaws. Their qualifications and terms of office shall be provided for in the Bylaws.

Section 2 — The Board shall have charge of the property and financial affairs of the Association, and perform such duties as are prescribed by law governing directors of corporations, or as may be prescribed in the Bylaws.

Article VII — General Officers — Designation

The general officers of the Association shall be those that are specified in the Bylaws. Their qualifications and terms of office shall be provided for in the Bylaws.

Article IX — Meetings

* Note: This is a numbering change only. The present language remains the same.

Summary of House Actions on Reference Committee A

Perhaps the most significant action taken by the House regarding Reference Committee A pertained to the report of the AMA Delegation. The AMA has urged all state associations to increase their participation in and direction of the state agencies which develop health policy and regulate the delivery of health care in various states. The federal government appears to be changing direction in this regard and calling for greater state responsibility in the distribution of the "allocated 'block grants' from Washington." With this in mind the House adopted the following two recommendations:

1. "that this House direct the Association to vigorously pursue the goal of greater physician participation in state government development of health policy and implementation when appropriate, as decided upon by the Executive Committee or Board of Directors."
2. "that the Board of Directors be charged with formulating a plan as to how and where the federal government's proposed 'block grants' should be distributed."

The House called for a closer relationship between the specialty societies and the MAG. The Association is making administrative services available to all specialty societies who wish to take advantage of the MAG offer. The House also called for a closer working relationship between MAG and the Georgia State Society of the American Association of Medical Assistants. Finally, the Nutrition Committee was directed to investigate and disseminate up-to-date nutritional information to the membership and the public.

Summary of House Actions on Reference Committee B

The 1981 House of Delegates, in response to recommendations of Reference Committee B, sup-

ported the 1981 Medical Fair (formerly Pre-Practice/Physician Recruitment Conference); agreed to continue the MAG computerized placement service; voted that a model waiver form for application for hospital medical staff privileges be developed; opposed the implementation of the hospital reimbursement system known as the Diagnosis Related Group System; encouraged all Georgia hospitals of 100 beds or more to participate in the Cancer Program; supported additional state funding for training programs of the six public teaching hospitals in Georgia in the counties of Fulton/DeKalb (Grady), Chatham (Memorial Center), Richmond (Talmadge Memorial), Muscogee (Medical Center), Bibb (Medical Center of Central Georgia), and Floyd (Floyd Medical Center, Rome); and withdrew support for the Metropolitan Life Insurance Company's second opinion program.

The House also agreed to continue the Georgia Joint Practice Committee (composed of representatives from both MAG and the Georgia Nurses Association); to complete the analysis of a survey of new physicians to identify specific problems and make recommendations, as indicated, to the Board of Directors; to pursue efforts to help alleviate the nursing shortage and improve patient care by working with the nursing organizations to improve training; to recommend to the Board of Regents that a physician advisory panel be established for each nursing program; to continue to monitor the development/revision of rules and regulations for physicians' assistants; and to develop a mechanism to monitor and make appropriate recommendations for MAG actions relating to activities of non-licensed allied health personnel.

Five additional actions resulting from this Reference Committee was the House's direction that: the designation of physicians' assistants be limited to those persons who have satisfactorily completed the generally accepted training programs and certifying examinations; the uniform claim form be utilized; MAG members be encouraged to use the AMA Current Procedural Terminology (CPT) Coding; efforts be made to insure that admission policies of nursing homes allow admission of debilitated patients on a non-discriminatory basis; and insurance claims be speeded up by the use of paperless claims processing and other approaches to reduce paperwork.

Summary of House Actions on Reference Committee C

One of the most important decisions made by the House was to approve and endorse the formation of the new MAG Mutual Insurance Company, a physician-owned professional liability insurance company. This action capped off more than a year of investigation by an Ad Hoc Committee on Self-Insurance, chaired by Charles D. Hollis, Jr., M.D., Albany, MAG's current president-elect.

Other actions included the passage of various resolutions submitted by the Bibb County Medical Society asking that federal funding be terminated for training of nurse practitioners and physicians' assistants, the health planning program, HMOs, PSROs, and catastrophic health insurance. Specifically, MAG is to petition the President of the United States regarding these programs, asking his assistance in repealing appropriate legislation and budgetary authority.

Summary of House Actions on Reference Committee D

Reference Committee D took up three reports and one resolution. The Report of the President, outlining the achievements of the MAG during Dr. Hammett's term of office, was filed with commendation. The Report of the Auxiliary, recounting its activities, was similarly filed with commendation. The Committee also adopted Resolution 12, submitted by the Medical Association of Atlanta, commending Dr. Hammett for initiating the Physician Involvement Program.

The most absorbing item before the Reference Committee was the Report of the Chairman of the Board, Jack A. Raines. In it, Dr. Raines related the action of the MAG Executive Committee, March 15, 1981, in support of Emory University School of Medicine and the Medical College of Georgia School of Medicine in their efforts to secure equitable state funding of medical education. Over two dozen persons spoke for more than 3 hours on this issue, with proponents of the Mercer University School of Medicine and physicians concerned about the supply of family practitioners in Georgia having a full and ample discourse.

As Dr. Raines did not report the action of the Executive Committee in the form of a resolution or recommendation, the Reference Committee chose to file the report with commendation. Regarding funding of medical education in the state, the Reference Committee reaffirmed the position of the 1980 House of Delegates, adding that this position be recommunicated to the Governor and the General Assembly.

The House adopted all of the recommendations of Reference Committee D. As a result, the following statement will be recommunicated to the appropriate officials of state government concerning support of the state's medical schools:

> *Resolved,* That the MAG encourage increased legislative funding of the Board of Regents for the Medical College of Georgia

School of Medicine to insure adequate support for those students now enrolled because of low faculty/student ratio, inadequate faculty salary levels, and the effects of both on the faculty recruitment and retention; and be it further,

Resolved, That the MAG go on record in support of increased capitation funding at the Emory University School of Medicine and the School of Medicine at Morehouse College; and be it further,

Resolved, That the MAG go on record as opposing an increase enrollment at the Medical College of Georgia and the development of other medical schools in this state until the adequacy of support of the current existing schools with enrolled and active students is assured.

Summary of House Actions on Reference Committee F

The most controversial matter coming before Reference Committee F was the continuance of the Health Care in the Jails Project. Funding for the project, which has come through the AMA from the LEAA (Law Enforcement Assistance Administration), had been terminated. The decision before the committee was whether the MAG should totally underwrite the program for another year or allow the program to end. Charles Allard, M.D., of Decatur, chairman of MAG's Committee on Prison Health Care, cited the lack of standards in many jails in Georgia, both large and small. The House agreed with Reference Committee F in funding the program for another year and asked the committee to continue to seek other funds for this project. The amount funded for this program is $35,365 to come from MAG dues if grant funding is not available from the state.

The other major action resulting from Reference Committee F was the approval of the largest budget in the history of the Association, a budget of $1,474,274. This budget will not require a dues increase from the $225 which was in effect in 1977-78.

FINAL GENERAL SESSION, SATURDAY, MAY 9

President H. Hilt Hammett, Jr., convened the Final Session of the 1981 Annual Business Meeting and expressed his appreciation to the Speaker and Vice Speaker for their handling of the business of the House of Delegates.

Installation of Officers

Dr. Hammett administered the oath of office to the following persons:

President — L. Newton Turk, III, Atlanta
President-Elect — Charles D. Hollis, Jr., Albany
First Vice-President — William C. Collins, Atlanta
Second Vice-President — Virgil W. McEver, Jr., Warner Robins
AMA Delegates — F. William Dowda, Atlanta; C. Emory Bohler, Brooklet; H. Hilt Hammett, Jr., LaGrange.
AMA Alternate Delegates — Carson B. Burgstiner, Jr., Savannah; Charles D. Hollis, Jr., Albany; Joe C. Stubbs, Valdosta; S. W. Clark, Jr., Waycross

Dr. Turk spoke briefly and announced the dates and sites of future MAG House of Delegates' meetings as follows:

1982 — Savannah, April 23-25, Hyatt Regency
1983 — Jekyll Island, April 22-24, Holiday Inn
1984 — Atlanta, April 26-29, Omni International

Dr. Turk announced the official attendance at the 127th Annual Session as follows: Delegates — 163; Alternates — 23; Other Members — 23; Guests — 36; Auxiliary — 159; Total — 404.

Adjournment

On motion duly made and seconded, Dr. Turk adjourned the 127th Annual Business Meeting of the Medical Association of Georgia at approximately 4:45 p.m.



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Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

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Patients with bilateral disease almost always have a positive OPG or CPA or both.

Comparison of Carotid Phonoangiography, Oculoplethysmography, Angiography, and Surgical Findings in Carotid Artery Occlusive Disease

JAMES F. KIRKPATRICK, JR., M.D., F.A.C.S., and
AUDREY W. PHILLIPS, R.N., C.R.T., *Tifton**

Introduction

IDEALLY, in clinical practice, the greatest value of a vascular laboratory is patient screening prior to arteriography and surgery. Hopefully, it prevents unnecessary carotid arteriography. This study is an evaluation of carotid artery occlusive disease as observed in a community hospital in southern Georgia, located in the center of the "arteriosclerosis belt" of the continental United States.

Methods

The principal tests in our vascular laboratory for screening of carotid occlusive disease were carotid phonoangiography (CPA) and oculoplethysmography (OPG).[1] The CPA contains a microphone which detects bruits, and amplifies and displays them on an oscilloscope. The image is then photographed for a hard copy. (This machine is produced by Medical Electronics Devices, Inc., of Tucson, Arizona.) Bruits which extend through systole and diastole are significant if they arise from the internal carotid artery.

The OPG[2] is done with the Kartchner-McRae fluid-filled oculoplethysmograph. This instrument is constructed to demonstrate a delay of arterial pulsations in the ophthalmic artery. The opththalmic artery is a major branch of the internal carotid artery, and in most instances should accurately reflect arterial pulsations occurring in the internal carotid itself. Usually, a stenosis of 50% or more in the right internal carotid will cause a delay in the filling time of the right eye globe, thus a delay occurs in the onset of the upsweep of the tracing obtained from the eye. A delay of more than 20 milliseconds from one eye to the other indicates decreased flow. With the Kartchner McRae device, the OPG is 80% accurate when compared to arteriography. When combined with CPA, the accuracy in their laboratory increases to 90%. Since both the OPG and the CPA are physiologic or functional tests, and arteriography is an anatomic outline or picture, 100% correlation is essentially an unobtainable objective. Since angiograms in our hospital are read by different people with different backgrounds, some of whom do not prefer to report their results in exact percentages, we have had to classify our arteriographic changes as either mild, moderate (60% or less), or severe (over 60%).

The surgical findings, likewise, have been divided into either significant stenoses (over 60%) or insignificant stenoses (60% or under). This report

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reviews our vascular laboratory, radiologic, and surgical experience from Aug. 1, 1978, through Dec. 1, 1980. (The reason for choosing the above dates was to generate an adequate number of carotid surgical cases to be statistically significant.) A number of carotid endarterectomies were done in addition to the 96 reported here but were not included in this study because no OPG or CPA study had been carried out on those patients. In this period of study, 627 OPG-CPA studies were done. As a result of, or in spite of, these tests, 123 cervicocephalic retrograde arteriograms were performed by the X-ray department. Carotid artery surgery (endarterectomy) was required in 96 of these patients.

The youngest patient in the series was 34 years of age, and the oldest patient was 88. The vast majority of the patients, however, were between 61 and 80 years of age.

Results

In a hospital population composed of approximately 20% black and 80% white patients, it is interesting that only four black patients had positive OPG-CPAs, and only four black patients required cervicocephalic arteriograms. (Only one of these four had a plaque requiring surgery.) Of those patients with cervicocephalic disease severe enough to require surgery, 32 were female and 64 were male. The only black patient was also male.

Of the 96 operative cases, 17 were diabetic. Of these 96, 70 smoked heavily, 25 were non-smokers, and one did not state his smoking preference. Also, 49 had pre-existing hypertension.

In this hospital, an EEG is preferred prior to both arteriography and surgery. In spite of our attempts to get EEGs on each patient, only 80 of the 96 had this test done. Of these, 53 were normal, and 27 were abnormal. Of the abnormal group, 11 were found to have previously undiagnosed seizure activity on their EEG. The other abnormals included diagnoses of encephalopathy, focal slowing, CVA, and beta activity due to drug use.

Brain scan and flow studies were done in most patients. This was a requirement of the radiology department prior to an arteriogram. The series of 96 operative cases included 85 normal brain scans, two abnormal brain scans, six patients who had no brain scans, and three attempted brain scans which were not satisfactory. Neither of the abnormal patients had a brain tumor. CT scanning is being done with rapidly increasing frequency, while brain scans are gradually being eliminated.

In conjunction with the brain scan, a "flow study" (cerebral radioangiogram) was reported by the radiologist. Of the flow studies, 47 were reported as normal, 33 as abnormal, and 31 interpreted as showing decreased neck flow. The flow study completely missed significant plaques in 65 patients. These were later confirmed by X-ray and operation.

In the vascular laboratory, we report OPG and CPA together. If either or both CPA or OPG are strongly positive, we report a positive test, and arteriography is then recommended. We do not call slight changes in either OPG or CPA positive and recommend arteriography only in the hemodynamically significant lesions.

Of the 627 patients visiting our vascular laboratory for carotid occlusive disease testing, the OPG was positive for 206 patients and the CPA for 205. Either or both were positive in 263, or 41% of the total number of patients. Of OPGs, 393 were negative in 59%, or 364 patients.

In this period of study, 142 carotid arteriograms were performed by the X-ray department, but only 123 of these had OPG-CPAs. These are the ones included in this study. Of the OPG-CPA patients having cervicocephalic arteriography, 52 were negative for significant disease (on X-ray). Sixty-six patients had a correct positive reading on OPG-CPAs. Using methods of expressing data as suggested by Allan D. Callow, M.D.,[3] our results are reported in terms of sensitivity and specificity. Sensitivity indicates the number of correct, positive, non-invasive tests divided by the number of patients found to have the disease. Specificity is the number of patients with negative, non-invasive tests divided by the number of patients without disease. The sensitivity, then, is the true positive and the specificity, the true negative rate. These two figures are totally independent of disease prevalence in our area.

Using the above figures, the sensitivity rate in our vascular laboratory was 93% (66 positive OPG-CPAs, divided by 71 positive X-rays). Thirty-four totally negative OPG and CPA readings were compared with 52 negative X-rays for significant disease. This yielded a specificity of 66%. However, if totally negative and hemodynamically insignificant are added, specificity becomes 93%. While we frequently cannot state whether disease is bilateral, nevertheless, of our 38 cases of significant bilateral disease, on X-ray, 37 were called positive on either OPG, CPA, or both. This gives a vascular laboratory overall sensitivity rate for bilateral disease of 97.3%.

While this is not primarily a surgical study, for general interest, some operative statistics are included. First of all, it was very obvious that when one compared the surgical findings with the arteriographic findings in our hospital, 44 of the 96 were found to be much worse at the time of surgery than had been suspected on X-ray. Five were found to be less severe, and nine were not stated. In 36 instances, the surgical findings and the arteriographic findings were the same. The majority of plaques

removed were ulcerated, and virtually all very severely stenotic plaques were ulcerated. The overall, operative mortality of the series of 96 carotid endarterectomies was three. A significant post-operative stroke occurred in five patients, three of these died, two survived, and one has permanent paralysis. (The one patient that had a significant stroke that recovered completely did not have pre-existing hypertension.) All three of the patients that died were hypertensive pre-operatively, and in all three, post-operative hypertensive episodes of crisis proportions occurred which were difficult to control medically. It was difficult to predict a poor outcome by angiographic or OPG-CPA studies.

Conclusions

1. Of 627 screening OPG-CPAs, 123 had arteriograms and 96 of those needed endarterectomy.
2. The OPG-CPA test in the vascular laboratory was 93% sensitive and 93% specific.
3. Patients with bilateral disease almost always have a positive OPG or CPA or both.
4. Half of the patients operated on for cervicocephalic disease had findings which were more severe than those described on X-ray. One-third were corroborative. Findings in the remainder were either less severe or not stipulated.
5. Cerebral radioangiogram flow studies are very poor predictors of angiographic or surgical pathology. Their false-negative rates are unacceptable.
6. If OPG and CPA are both negative, the expected yield from arteriography for significant plaques is extremely low.
7. Black people who have TIA symptoms are unlikely to have positive OPG-CPA or positive angiography.

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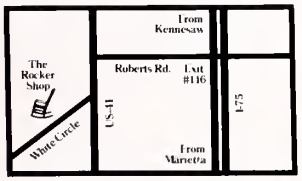
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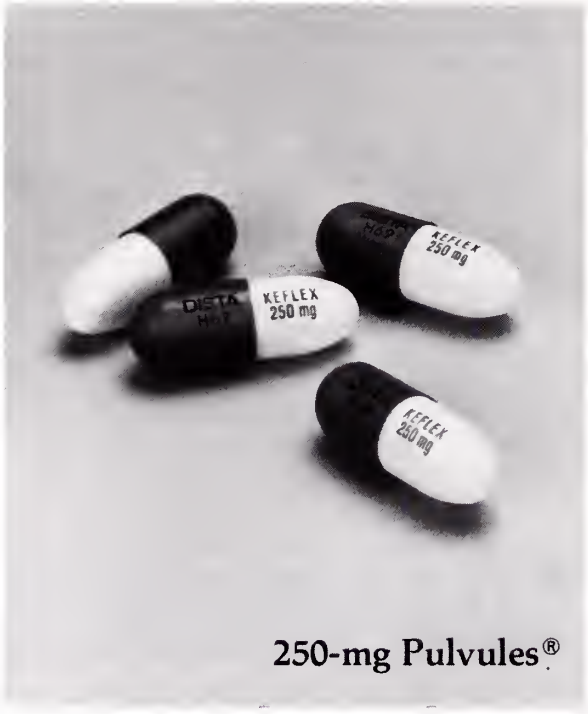


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Current studies involving the use of interferon on a select group of cancer patients are designed to teach us more about the drug and its effects rather than to cure the patients involved. Interferon is still in the experimental stage.

Interferon: An Early Evaluation

KENNETH B. McCREDIE, M.D., *Houston, Texas,* **and MALCOLM S. MOORE, Ph.D.,** *New York, N.Y.**

What it Is

INTERFERON is the name given to a group of chemicals, as yet undefined, which are made by several types of cells in the body in response to viruses and to some other stimuli. It is one of many substances occurring naturally in the body which are known as biologic response modifiers because they regulate different components of the immune system. Interferon was first recognized as the body's front line of defense against viruses, but as research has continued, it has been found to play many other roles. One which captured scientists' imagination immediately was interferon's ability to block mitosis.

Interferon is a product of living cells. For many years the only source was in Finland, where it was painstakingly prepared from large quantities of white blood cells, stimulated by a virus, and then purified. Interferon's scarcity and high cost held back research; without good evidence that it could be effective against cancer there was little incentive to produce more or to make it cheaper. The vicious cycle was broken when the results of a study conducted in Sweden were announced. Interferon had been given to bone cancer patients after surgery, and in some patients it prevented or delayed recurrence of the disease. The results were about equal to those achieved with chemotherapy during the 1970s. The Swedish study stimulated clinical research on interferon, but no attempt has been made to corroborate the findings concerning interferon's effect on osteogenic sarcoma. Indeed, no patient with any form of cancer or leukemia has, in fact, been cured with interferon.

Because we believe that the best clinical research is firmly grounded in evidence arising from laboratory studies, the Leukemia Society of America is presently funding basic research on interferon and on substances which stimulate its production. This research, begun in 1975, is designed to increase our understanding of interferon's anti-viral and anti-tumor actions and may, one day, provide important clues to the best way to treat patients with it. Even if this research does tell us more about the behaviour of interferon on the molecular level, however, no one familiar with this field would suggest that interferon is likely to be used against leukemia or other malignancies any time soon. Nevertheless, public enthusiasm about interferon is growing fast — so fast that, we believe, some important facts are in danger of being overlooked.

First, interferon remains an *experimental material.* It is available only in experimental quantities and can be used only on the few patients who meet the requirements of the research studies that have been set up. These studies are designed to enlighten us about interferon and its effects rather than to cure the patients enrolled in the studies.

Secondly, interferon is only partially understood. New results from laboratories around the world are constantly changing our ideas about it. An important step forward will come when completely pure interferon is available for clinical testing. Most clinical work done to date has used interferon preparations containing some impurities, many of which are unknown. These impurities may alter the action of interferon, or they may be responsible for some of the effects that have been attributed to interferon.

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Some investigators have managed to purify small quantities of interferon and are working to analyze it so that clinicians will know just what they are working with. Several types of interferon have been identified; preliminary evidence suggests that one recently discovered type may have a more powerful effect against malignant cells than the better-known interferon known as Type I.

How it Works

Interferon works simultaneously in many ways, complicating the task of researchers who are trying to discover exactly what it does. It seems to increase the activity of white cells in the blood without involving other parts of the immune system. Interferon also activates macrophages, which themselves appear to produce a kind of interferon of their own whose role in fighting cancer and other diseases is not defined. Interferon also makes various cells produce many different chemicals — for example; it causes the release of histamine, the chemical which brings on the symptoms of allergy and which, in extreme cases, can lead to anaphylactic shock.

Animal studies show that interferon can halt the growth of tumors, and there are reports that when injected directly into cancer nodules, interferon has some kind of direct killing effect on the malignant cells. Just how this happens is not known. Some investigators suggest that it may be caused not by interferon itself but by impurities in the preparations.

Interferon's ability to block mitosis may or may not be responsible for its reported effect on cancer cells. In any event, interferon blocks the mitosis of normal cells, and some of the cells most sensitive to this effect are essential to a properly-functioning immune system. It has been reported that interferon blocks the proliferation of both the antibody-producing B cells and the T cells which include a number of specialized groups of messenger, killer, and regulatory cells. Interferon's antiproliferative effect may also extend to other kinds of white blood cells needed to fight infection.

Thirdly, interferon may not be harmless to the patient, although as a substance produced naturally in the body, it would seem, at first glance, to be very safe. Interferon, when used in ways other than those which nature intended, may involve formidable risks which, when doses are high, may equal those of established cancer therapy. Our bodies normally produce only a little interferon at a time. Though much larger doses are being given to cancer patients in the current studies, most investigators agree that, for really substantial anti-cancer effects, still greater doses will probably be necessary.

Thus far, interferon's side effects seem to be minor — fatigue, some loss of hair, and a mild suppression of the bone marrow's ability to make new blood cells. It is possible that at the higher doses necessary for interferon actually to cure cancer, patients would experience more intense and possibly more serious side effects. The most significant of these are likely to include a decrease in not only white blood cells, but in red cells and platelets as well, rendering the patient susceptible to anemia and hemorrhage.

For the patient with myeloid leukemia, interferon may do more harm than good. Recent research shows that interferon keeps cells from maturing, keeping them in the useless "blast" stage which is characteristic of myeloid leukemia. Whether similar problems would arise in patients with other forms of leukemia is not known.

Amid the great excitment about interferon's possible role as an anti-cancer agent, its recognized anti-viral activity has been overshadowed. Physicians who are giving interferon to cancer patients report that whether the malignancy is responding to interferon or not, these patients develop fewer viral infections than expected. In the long run, this may prove to be the greatest benefit that interferon can offer the cancer or leukemia patient. Short-term treatment with interferon might save the lives of many patients with cancer and leukemia who might otherwise be lost, not to the malignant disease, but to viruses such as herpes and cytomegalovirus.

The Panel on Review of Blood and Blood Derivatives does not recommend the routine use of such filters except in cardiopulmonary bypass surgery.

Microaggregate Filters — Should They Be Used?

ALFRED J. GRINDON, M.D., *Atlanta**

It has been known for some years that whole blood and packed cells, when stored at 5°C, accumulate particulate leukocyte, platelet, and protein debris over time. This debris will pass readily through the standard blood transfusion filter of 170μ, but is generally removed by filtration devices with much smaller pore size (40μ or less). This particulate matter has been termed "microaggregates" and the filters designed to remove it, "microaggregate filters."

This particulate material has been shown to be removed in pulmonary capillaries in vivo. Aggregates have been found in sections of the lung following transfusion. Moreover, one of the hallmarks of the presence of these aggregates, the screen filtration pressure, is high in stored transfused blood and is normal after passage through the lungs.

Is this particulate debris regularly deleterious to patients receiving blood transfusions? If it is, efforts should be made to remove it by filtration. If it is not, such filters probably should not be used, since they are costly and impede the flow of blood across them.

Numerous experiments have shown deleterious effects of microaggregates in dog and primate models. It has been much more difficult to demonstrate such effects in humans. Reul and co-workers[1] showed dramatic adverse effects of microaggregates in a shock/trauma unit: 7 of 17 patients who received blood through an ordinary filter were severely hypoxic (arterial $PO_2 < 60$ mm/Hg), while only 2 of 27 who received blood through a microaggregate filter experienced such severe hypoxemia. This study has been criticized because of the greater number of patients with thoraco-abdominal wounds in the control group, and the fact that other studies have not demonstrated this degree of severe hypoxemia in shock/trauma patients treated with ordinary filtration devices. While other groups have shown subtle changes in pulmonary function following transfusion of smaller volumes of blood, no other group has been able to document the severe arterial hypoxemia resulting from transfusion of stored blood containing microaggregates seen by Reul and his co-workers.

The final report of the Panel on Review of Blood and Blood Derivatives states, "There is no basis on which to recommend the routine use of microaggregate filters except in cardiopulmonary bypass . . . , at this time."[2] In view of the impeded flow through these devices and their cost, this conclusion continues to be reasonable.

References

1. Reul GJ, Beall AC, Greenberg SD. Protection of the pulmonary microvasculature by fine screen blood filtration. Chest 1974;66:4-9.

2. Final Report, Panel on Review of Blood and Blood Derivatives: submitted to Commissioner, FDA, 1980.

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Francis O. Ticknor, 19th Century Physician-Poet — Part I

EVELYN WARD GAY, ***Atlanta****

When Dr. John Ransom Lewis was named Georgia's poet laureate a few years ago, the public began to ask: "How can a doctor write poetry?" As the poems of Dr. John Stone also gained in popularity, the question was heard more frequently.

Most literary buffs have conceded that many members of the medical profession make excellent writers, but only a few have accepted the fact that some of them also make very good poets.

Yet poetry writing among physicians is not the rarity it seems to be. It is a matter of record that Drs. Lewis and Stone had their most famous counterpart in Georgia during the Civil War years in the person of Dr. Francis Orray Ticknor of Columbus.

Although Dr. Ticknor was a devoted Georgian and much of his writing, both prose and poetry, revolved around this state, he was not of Southern ancestry. His father, a native of Connecticut, had first come to Savannah from New Jersey and later practiced medicine in Fortville, a small settlement located in Jones County. His mother was the former Harriot Coolidge, daughter of Joseph and Lucy Jones Coolidge, who had come to Georgia from Connecticut in 1800 and settled also in Savannah.

Frank Ticknor, as Francis Orray Ticknor was called, was only 5 months old in 1823 when his father died at the age of 33. Harriot Ticknor had two other small children, James and Lucy Elizabeth, and very little income with which to support them. They soon learned to help their mother eke out a living by raising chickens and vegetables to sell around their rural south Georgia neighborhood while she took in sewing. It was the mother's plan to send her children back later to live in their ancestral home in Connecticut.



Pen and ink sketch of Dr. Francis Orray Ticknor, said to have been done by a sister-in-law, was furnished by a namesake and descendant, Francis E. Ticknor, of Newport News, Va.

* Mrs. Gay (Brit B., Jr.) is a member of the Auxiliary to the MAG. Her address is 911 Vistavia Cir., Decatur, GA 30033. This article is taken from a book-length manuscript about Dr. Ticknor called "Of Pills and Poetry" that will soon be published.

Young Frank was reluctant to leave Georgia. He loved the little town of Columbus which occupied the site of a former Indian village called Coweta. At an early age, he began to weave his own stories around the Indian legends the local settlers told, to make pen and ink sketches, and to write rhymes about them.

At other times he would sit on the banks of the Chattahoochee River that flowed nearby and play his homemade flute made out of a hollowed-out piece of bamboo cane, while he watched the steamboats ply their trade up and down the stream. He wrote verses about the land, the river, and about the impoverished people he knew whose families had once been his father's patients.

At the age of 15, however, he began to think about an entirely different kind of life from the one he had known around Columbus. His brother had decided on a career as a clergyman, and it was left to Frank to fulfill his mother's wish of having one of her children become a physician like her husband.

At an early age, Dr. Ticknor began to weave his own stories around the Indian legends the local settlers told, to make pen and ink sketches, and to write rhymes about them.

True, he could have attained his goal by remaining in the South. There was a small academy in Columbus where he attended classes when in session. There was the state college over on the Oconee River at Athens. And there was the Medical Institute at Augusta. But none of those would suit if he were to pursue the kind of education his mother felt he needed to become a good doctor.

There were few means of transportation in and out of Columbus that fall of 1838 when he was 15 years of age. The railroads had not yet been extended that far west in Georgia. It was a long and tiring journey he must take by wagon, by boat, by stage, and eventually by train, before he reached his destination, Boston. On the trip, he filled his time by writing poetry.

In Boston, he was homesick for Georgia. He wrote more verses about his family and friends and things he remembered about them. Yet in spite of his longing for home, he found much pleasure in his new surroundings. He began to study the history of Massachusetts and the works of that state's famous writers. He spent many hours in the well-stocked libraries of Boston where he learned to love the operas of the day and to expand his knowledge of good literature.

The school he attended advanced his meager knowledge considerably. Along with the essentials, he learned to perfect his sketches and to polish up his thoughts and put them into rhymes. He also learned to play a real flute. Soon he had an instrument of his very own, bought with "egg money" and dispatched to him by his mother from distant Georgia.

In less than a year, he was recommended for college in New York City. There, too, he moved ahead in his studies while he observed the customs and the history of the people so far removed from his homeland.

Then he was on his way to Philadelphia and that city's College of Medicine. He instantly became interested in the work of Dr. Thomas Bond who had inspired the Pennsylvania Assembly to set up the country's first temporary hospital on High Street "for the relief of the sick . . . and for the reception and cure of lunaticks." It was there that the first medical school had been founded at the University of Pennsylvania in 1765. He also became a follower of the works of Dr. Benjamin Rush, signer of the Declaration of Independence, who was called "the father of psychological medicine," and who had advocated "humane treatment of the mentally ill."

Although he learned all the accepted procedures for treatment of diseases such as consumption and leprosy, Frank Ticknor was placed under the tutelage of Dr. Thomas Story Kirkbride, head of the mental department, where a great deal of his learning was directed toward new ways of aiding the mentally ill. He began a routine of going back after hours to read to the patients, to share with them some of the new knowledge he had gained, as well as stories about life as he had known it in the South. He took quick note of the fact that such attention seemed to cheer patients who long had been withdrawn and despondent.

Following his graduation from the College of Medicine in Philadelphia in 1842, Frank Ticknor left for his mother's old home on Elm Avenue in Norwich Town, Connecticut, a small community located on the busy Thames River. Only twenty years of age at that time, he went to live with relatives in the house which had been built more than 100 years before by his great-great-grandfather, Silvanus Jones, and to become apprenticed to one of the town's leading doctors.

A relative living in the house described him later as being "handsome, of medium height and slender build, with clear blue-gray eyes . . . a likeable young gentleman who made friends easily."

As he had done in Boston, New York, and Philadelphia, he began to delve into the past as well as to take note of everything about him. He found to his surprise that Connecticut had fertile soil and a beautiful countryside, not unlike the area where he had grown up in Georgia. But there in the North, he also found advanced industry and trade — the manufacture of felt hats, brass buttons, iron nails; silk,

woolen and paper mills; mines and foundries, orchards and vineyards and dairy farms. He longed to take those advanced methods of manufacturing and agriculture back to the poorer state of Georgia. With the right kind of machinery and knowledge, he felt that Georgia could one day be as progressive as Connecticut.

At the end of the year, it was with a sense of mission that Frank Ticknor ended his apprenticeship and returned to Georgia to settle himself at a place called Shell Creek, a small hamlet in the heart of the piney woods near Columbus.

At first, the young doctor was very lonely in the isolated rural settlement. He found the solitude of the country atmosphere almost intolerable after his years in the big cities of the North. But he soon found a way to remedy loneliness. Instead of living within himself and looking entirely to books for consolation, he began to give himself and his knowledge freely to the people among whom he lived and worked. He quickly became known as a country doctor of the finest type. Even at the age of 21, he was loved by all he treated and considered a skilled practitioner.

Young Dr. Ticknor devoted a great deal of his time to the suffering poor and to those who were depressed or mentally afflicted. Oftentimes, he would take along his treasured books and read to them, as he had done with patients in the North. As one writer remembered many years later: "He was unostentatious in his own living and dress, profoundly sincere in his Christian practice, and regarded the poverty-smitten and unfortunate as pensioners assigned to his care by Providence."

But Dr. Ticknor's mind was too broad to limit itself to only one pursuit, no matter how important he felt it to be. During any spare moments from his work he found himself bored and eager for diversion through other forms of fulfillment. He spent much time writing letters in those early years, and at what he termed "verse writing." Many of the letters which he wrote to friends and relatives contained a bit of his original poetry.

In one letter he described graphically an improvised method of life-saving which he used during those days of the mid-1800s — the art of bloodletting by using a riding switch attached to his wrist by a strap which he tightened about a child's arm by "giving the cone a few twists." This, he said, distended the vein "beautifully" and "sent out the blood with a rush." He concluded: "The effect was charming, and the convulsions did not return."

Added the 22-year-old physician: "But it's a trial by fire, I tell you, this getting into the world. It has burnt all the poetry out of my composition."

Apparently that wasn't exactly true, for he enclosed a poem he had written and commented: "I



Two Million Pills Per Diem ***(redrawn by James A. Mahaffey, Atlanta, from descriptions of Dr. Ticknor's original sketch which accompanied this poem.)***

Two Million Pills per Diem

(Turned out at a single Northern Pill-ery)

Two million pills a day! and yet
(Though people daily die)
The rogues do flourish rich and great,
And fools do multiply –
The two great pill-ers of the state
Stand prominent and high.

Two million pills! A month's supply,
If all arranged in boxes,
Would equal the Equator, aye,
And both the Equinoxes!
Two million pills in single file
Would over-run the cable,
And rounded up, might go its pile
Against the tower of Babel!

Enough to turn the planets pale,
To heave the ocean dry,
And crook the very comet's tail
With perfect agony!
And, oh, my countrymen! the ills
Your heedless stomachs dash on
Might melt the makers of those pills
To bowels of compassion.

And could I cure you of the curse,
With "learned skill," I'd cull
And give you in one fragrant verse
The "pill receipt" in full,
Of rhubarb, aloes, jalop, just
as much as may suffice,
With hydrargyrum, and a dust
Of powdered liquorice.

Then soap enough to make it stiff,
And from a tower tall,
The pills are pestled through a sieve,
And rounded as they fall,
Like shot, my fellow countrymen,
And yet you take them all!

send you a piece which I composed, thinking that it may refresh me to deal a little in rhyming ware."

On Jan. 18, 1847, at age 24, Dr. Frank Ticknor was married to Rosalie Nelson, youngest daughter of Major Thomas Mauduit Nelson, formerly of Virginia, an officer in the War of 1812 who had later become a prominent member of Congress. In 1840 the family had moved to Wynnton, near Columbus, and it was there that Major Nelson gave Rosalie, then 19, in marriage.

The Ticknors continued to live at Shell Creek for a while. Their first two children, Harry and Lucy Evelyn, were born there, but both died in infancy. Over the next several years they were to have a total of six sons and two daughters, but tragedy would strike again when one of them would die in early childhood. After the death of each child Dr. Ticknor poured out his anguish in poetry.

Yet, in those early years of his married life which were filled with personal travail, a friend wrote: "Far and wide, among the sand barrens or in the farmhouses of the neighboring valley, the good and wise physician was known and welcomed. His gleeful smile, his spontaneous criticisms (for his mind actually bubbled over with innocent humor) cheered up many a despondent invalid, and it is possible scared Despair, if not Death itself, away from the bedside of patients just about finally to succumb."

In 1850, Dr. Ticknor became concerned for his family's health. The creek-bottom community where they lived was infested with mosquitoes, and the dread fever had taken its toll on the people who lived there. As a result, he moved his wife and remaining children to a farm located on the summit of a high hill about 7 miles south of Columbus. He called the picturesque country home "Torch Hill" for an Indian engagement said to have been fought by torchlight in the vicinity.

The house overlooked miles and miles of the Chattahoochee River Valley and was soon surrounded by waving fields of grain and opulent orchards. With the poet's love of beauty, he transformed the neglected land into a mecca of flowers and fruit trees. It was called "a perfect mecca of roses" by a friend who also wrote: "Towards autumn, the crimson foliage and blushing tints of great mellow apples, especially if touched by sunset light, caused the hill to gleam and glitter as with the colors of fairyland. . . . Here in this peaceful nest, Dr. Ticknor lived . . . dreamed dreams . . . and beheld pleasant visions. Art opened to his soul not one alone but several of her fairest domains."

But Dr. Ticknor was first and foremost an active physician who gave his services unstintingly to his fellow man. He would ride for miles on horseback to see a patient even though he knew there would be no pay for his visit. He had no large store of worldly goods to offer those people, but he did possess something better — the ability to put many of them back on their feet so that they could help themselves.



Dr. Ticknor's sketch of Torch Hill (redrawn by James A. Mahaffey, Atlanta.)

Torch Hill

Forest-girded, cedar-scented,
Veiled like Vespers, sweet and dim;
Pure as burned the Temple's glory,
Shadowed by a Seraphim;
Islet from contending oceans,
Coral-cinctured, crowned with palm,
Where the wrestling world's commotions
Melt through music into calm;
Throats that sing and wings that flutter
Softly mid the balm and bloom;
Sweeter songs than lip can utter
Sings my heart for thee, My Home.

Because of his dedication to his work, it was only at rare intervals that he could snatch a moment's leisure and resign himself strictly to poetic moods. Traveling over familiar country roads on his faithful old horse, his mind was sometimes free to wander. He wrote of things he saw along the way, of feelings brought forth by his close relationship with the people, the animals, and the land. Many of his poems he later illustrated by rough sketches, such as the lengthy one he wrote about pills. He was concerned about the great number of pills the people demanded for their simplest ailments. Many of them were merely bored with their lot, he felt, and needed new direction in their lives. He voiced his thoughts in his poem which he called "Two Million Pills Per Diem."

It was during those first years at Torch Hill that Dr. Ticknor became a noted farmer, and in his new role he soon found what he had been searching for. He was so intensely interested in the land, in his own fruit trees and his gardens of flowers and vegetables, that he wanted to share his knowledge of growing them with others. To do that and to broaden his reach, he began to write many articles on horticulture for *The Southern Cultivator*, which was considered the ultimate authority on Southern farming in that day. It was a small periodical published in Athens, Ga., but one with a circulation extending as far as Australia and New Zealand.

Copies of the publication soon found their way into even the remotest farmhouses, and he spent many hours discussing with local farmers ways to improve their land. Along with the articles, he published poems on farming that would encourage them and inject a little humor and culture into their lives.

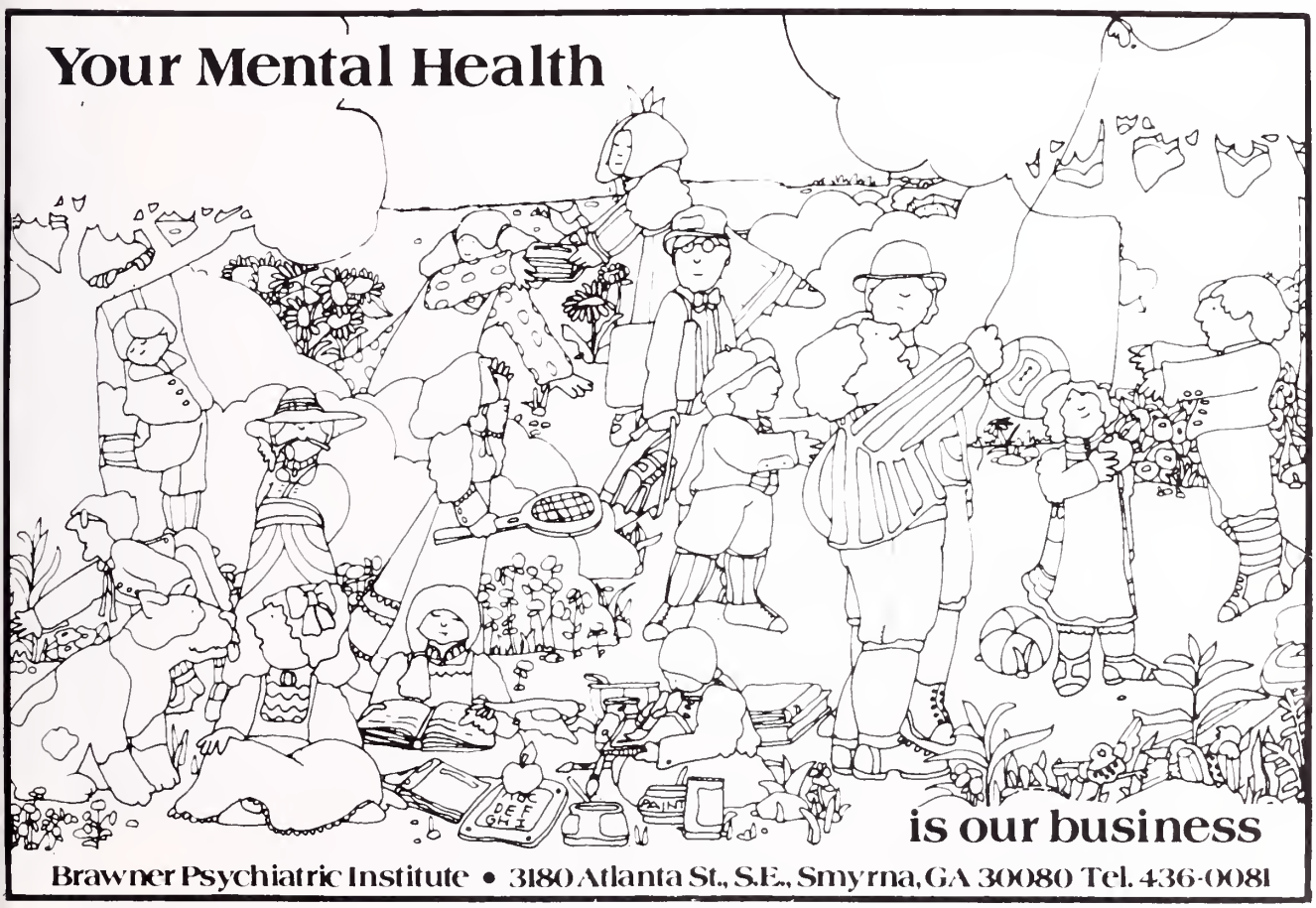
Dr. Ticknor gave every wakeful moment from the heavy burdens of his practice to farming and writing. Whenever and wherever he was inspired, he recorded the inspiration as it came to him. Many of his verses were written on the backs of prescription blanks which he carried in his saddle-bags. As he rode back and forth over the country roads to see his patients, or sat beside a sickbed, he scribbled his thoughts down in hurried notes.

For 10 years, Torch Hill would mean peace and satisfaction to Frank and Rosalie Ticknor. During those years the land about them began to prosper. More crops were planted, more food harvested. He gave the people encouragement and a lighthearted view of the world along with seeds from his barn, the loan of his animals and equipment, until they were able to buy their own.

Dr. Ticknor could look back on those earlier years when he had seen only hopelessness among the people and remember many of the lessons he had learned in the North. Good health was one of the requisites which he saw as necessary to good living, and he set about more industriously to teach them to care for their bodies and to prevent illness. In poetry and prose, he told them how to develop sanitary conditions in their homes. He urged them to eat the right foods, to get their proper rest, and to think beautiful thoughts.

And then the war came . . .

(To be continued in a subsequent issue.)



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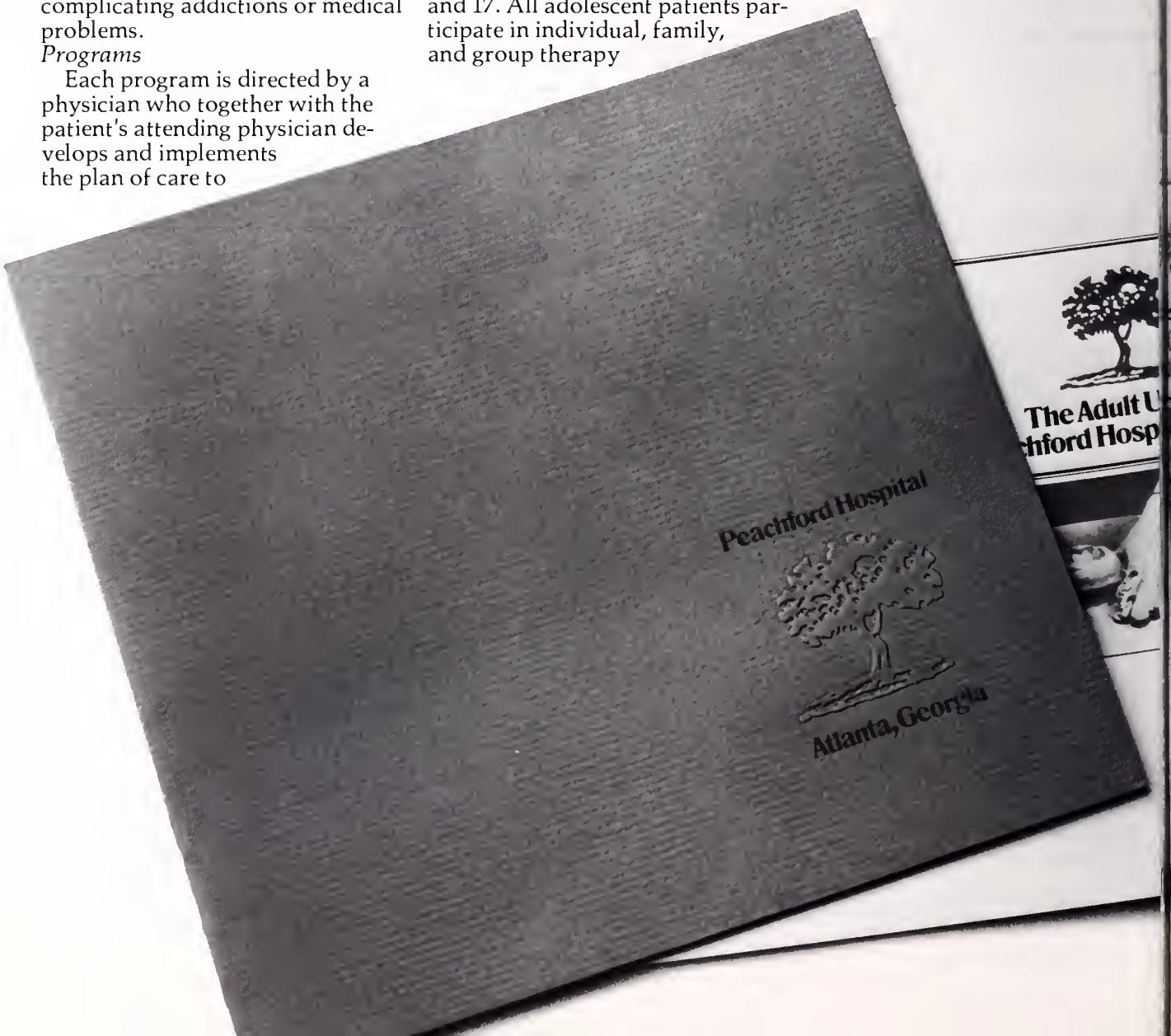
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erious problems.

nd group therapy sessions, as well s individualized programs for edu- ation, activities therapy, develop- ıental play, and social services. Art, dance, music, occupational, nd recreation therapy are vital omponents of the program. arents are involved in family essions and parents' groups.

Addictive Disease Program — ıcludes detoxification, intermediate care, and aftercare services based on the philosophy of Alcoholics Anonymous. The treatment program is designed to focus on the total person through participation in educational lectures, group therapy, activities therapy, and family programs. The goal of the program is to teach the addicted individual a manner of living by which he or she may remain free of all addictive substances.

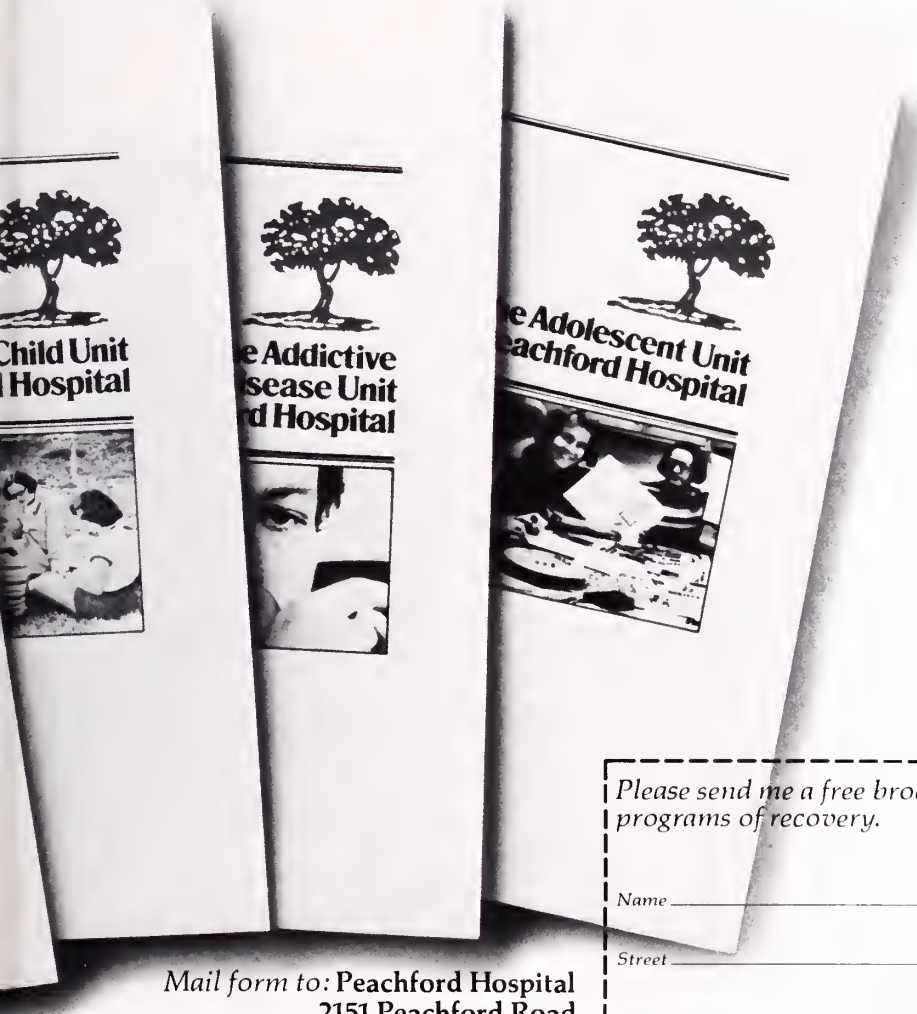
The hospital has an open medical staff including psychiatrists, other medical specialists and allied professionals. Separate committees supervise the children's program, adolescent program, adult psychiatric program and the alcohol and drug abuse unit.

The professional staff consists of nurses, social workers, recreational therapists, occupational therapists, art therapists, music therapists, dance therapists, teachers and counselors.

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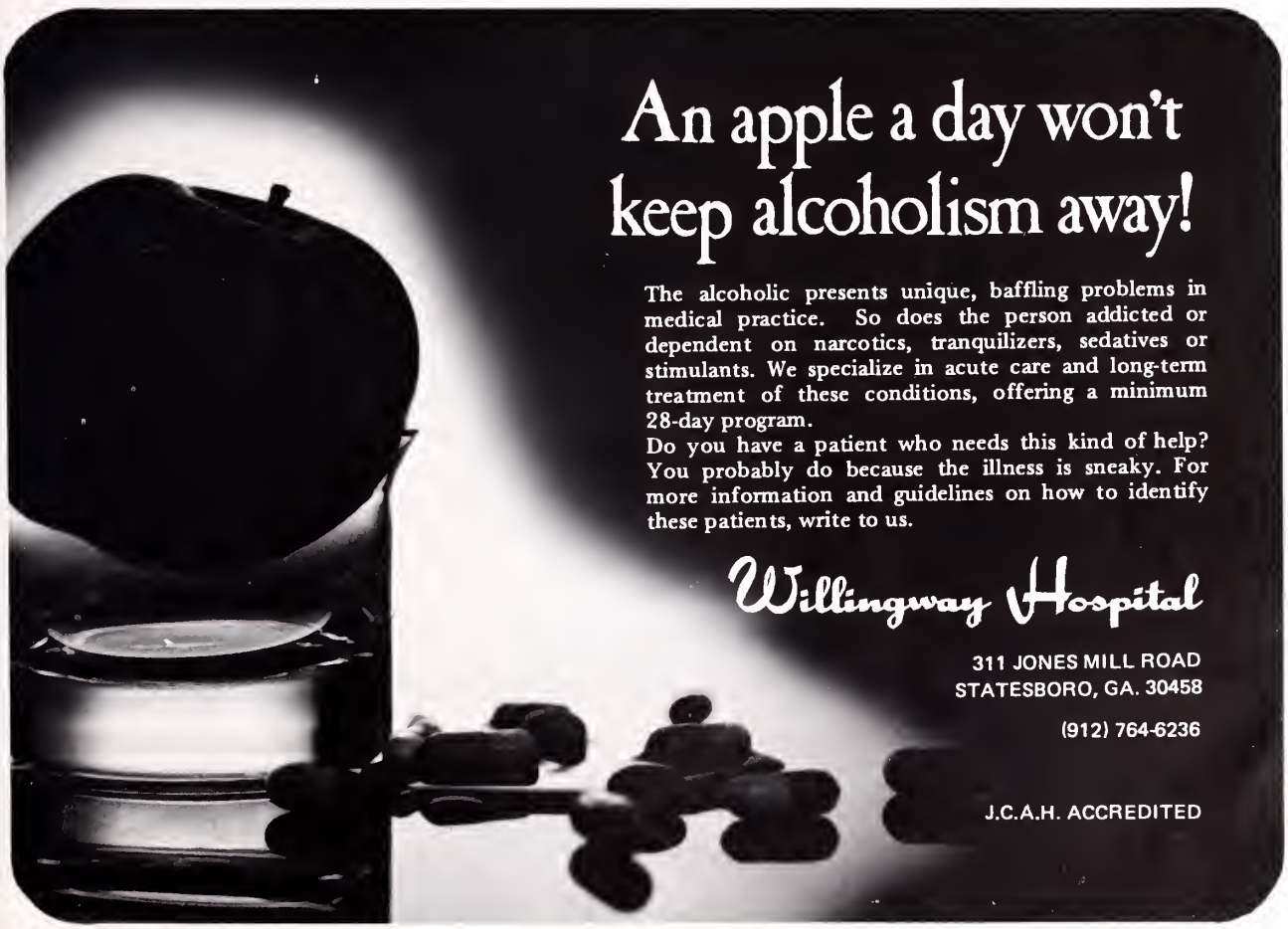
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The MAG Mutual Insurance Company — A New Opportunity for Self Determination

WITHOUT A DISSENTING comment or vote, the MAG House of Delegates authorized the formation of a physician-owned, MAG-sponsored professional liability insurance company at its May, 1981, annual meeting. This is a monumental step. It is probably one of the most significant actions the MAG has taken to influence medical practice in Georgia — both for doctors and for patients.

A physician-owned company will save premium dollars. Actuarial projections show conservatively a 25-30% saving in 3 or 4 years, everything else being equal. But everything is not equal. Physicians will own and operate the company with a physician-staffed Board of Directors. Medical colleagues will evaluate claims and recommend defending non-meritorious claims, regardless of cost. A committee of the Board will supervise the investment of reserves and assure that all of the income will accrue to the profit of the policyholders, not to outside stockholders. Risk Management Programs will be developed carefully to alert Georgia physicians to the danger spots in practice which might expose them to malpractice suits. Good risk management procedures can also serve to elevate the standards of medical care. Georgia physicians thus will be able to wield the weight of the profession in a cooperative way to influence the malpractice climate.

There will be competition in the marketplace. Competition will replace negotiation. But there will be inherent advantages in our mutual company, where policyholders realize the benefits of any profits, which will assure the physician-owned company a continuing competitive edge.

We are ready to start and are awaiting clearance by the Secretary of State and the Georgia Insurance Commissioner to begin soliciting business. Surplus certificates of $1500 each to raise capital are planned to be made available, possibly in July.

Even though regulations will not allow the company to guarantee redemption of these certificates at any time, any redemption will be made in the order in which purchases are made — first purchased, first redeemed, except that priority will be given to those surplus certificate subscribers who contributed $100 toward the MAG feasibility study. The company will be active following the sale of $3 million of certificates to be sold only by prospectus to be filed with the Secretary of State.

The MAG House of Delegates, MAG President Dr. Newton Turk, and the other MAG officers said, with enthusiasm, "Attack the insurance problem. There is an even greater opportunity through this insurance company to tackle the malpractice problem."

The opportunity is clearly ours and will benefit not only us but also our patients. Let us wholeheartedly take advantage of what it has to offer us all.

Charles D. Hollis, Jr., M.D.
Chairman,
Ad Hoc Committee on Self-Insurance
and *President-elect*
Medical Association of Georgia

Restrictive Covenants in Partnership Agreements and Employment Contracts: A Primer

ROBERT N. BERG, *Atlanta**

YOU ARE AN ESTABLISHED physician who has practiced for many years in the same community. In fact, your practice has become so successful that it is now necessary for you to bring in a second physician to meet the demands of your patients. However, you worry about the problem which could arise in the event that the physician you select attempts to "raid" your practice — by working for you long enough to develop professional relationships with many of your patients, and then leaving your employ and taking these patients with him.

Alternatively, you are a young physician recently completing your residency and, rather than immediately going out on your own, you seek to practice with an established physician for a limited number of years in order to further develop your skills. You have run into a problem, however, in that all the physicians with whom you wish to practice require that you sign an employment agreement, the result of which would be that, after you leave their employ, you will be unable to practice medicine in the same community.

These two hypothetical situations exemplify the types of problems which either are caused by or attempted to be cured through the use of restrictive covenants, or, as they are commonly known, "covenants not to compete." The use of restrictive covenants in employment and partnership agreements among medical practitioners has been a common practice for many years. In light of recent Georgia court decisions analyzing the enforceability of restrictive covenants in cases involving medical practitioners, many of which have ultimately invalidated the restrictive covenants on the ground that they were in contravention of the public policy of the State of Georgia, this appears to be an opportune time to review these cases and analyze the factors which, in the eyes of Georgia courts, may be important in determining the validity of restrictive covenants in partnership and employment agreements involving medical practitioners, and offer some helpful hints in structuring restrictive covenants in these agreements.

General Rules

The general rules utilized by courts in analyzing restrictive covenants are relatively easy to understand but extremely difficult to apply. As a starting point, it

* Prepared at the request of the Medical Association of Georgia. Mr. Berg is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

is well-established that parties are free to contract on any terms and about any subject matter in which they have an interest. As a caveat to this general rule, however, parties may not contract concerning certain subjects deemed to be in contravention of the public policy of the State of Georgia. In that regard, Georgia law prohibits, among other things, contracts or agreements which tend to defeat or lessen competition or in general restrain trade.[1]

Restrictive covenants in partnership or employment agreements fall somewhere in the middle between the right of freedom of contract and the prohibition against contracts in contravention of public policy; they are deemed by the courts to be "partial restraints of trade," and are thus enforceable only under certain conditions.[2] In Georgia, the three conditions which must be satisfied in every case in order to establish the validity of a restrictive convenant are: (i) the restrictive covenant must precisely and clearly indicate the activities which may not be undertaken by the party agreeing to limit his or her practice; (ii) the restrictive covenant must be strictly and reasonably limited as to the time in which the restraint will be imposed; and (iii) the restrictive covenant must be strictly and reasonably limited as to the territory in which the particular prohibited activities may not be undertaken.[3]

In applying these conditions to restrictive covenants, Georgia courts have distinguished between restrictive covenants ancillary to employment contracts and restrictive covenants ancillary to agreements for the sale of a business. As a result, restrictive covenants are more likely to be upheld in cases involving sales of businesses. The primary reason for this more lenient judicial analysis of restrictive covenants is based upon the importance of "goodwill" to the person obtaining the benefit of the restrictive covenant. In restrictive covenants ancillary to agreements for the sale of a business, the promisor usually has *sold* the goodwill of his business or practice (and was compensated for that goodwill); in restrictive covenants ancillary to employment agreements, the person making the promise to not compete usually has not sold any goodwill to the beneficiary of that promise (although one purpose of the restrictive covenant may be to *preserve* or *protect* the employer's goodwill).[4]

The importance of this distinction may be shown by the fact that Georgia courts have distinguished between restrictive covenants in employment cases and restrictive covenants in sales of business cases in applying what is commonly known as the "blue pencil" doctrine. In its simplest form, this doctrine relates to the question of whether or not a court will edit a restrictive covenant which is overbroad or unclear in order to rectify these errors and thereby preserve the enforceability of the restrictive covenants. In cases involving restrictive covenants ancillary to employment agreements, it has been held that, when a portion of the restrictive covenant does not satisfy one of the three conditions described above, the entire restrictive covenant is rendered unenforceable.[5] On the other hand, in cases involving restrictive covenants ancillary to the sale of a business, courts have been willing to edit the restrictive covenants to remove any overbreadth or unclarity, if the enforcement of the restrictive covenant is essential to the protection of the purchaser of the goodwill.[6]

Enforceability of Restrictive Covenants in Employment and Partnership Agreements Involving Medical Practitioners

As indicated above, the first condition that must be established in order to successfully enforce a restrictive covenant is that the proscribed activities be set out in the employment or partnership agreement with specificity. A prime example of a failure to meet this condition involved the case in which a company in the business of providing wrecking and demolishing services employed a supervisor for 7 years. When the supervisor left the employ of the company and went out on his own, the company brought a suit to enforce the restrictive covenant which prohibited the employee, upon termination of his employment, from obtaining employment with a competitor "in any capacity." The court refused to enforce the restrictive

covenant, however, based upon the fact that the restrictive covenant did not specify with the requisite particularity the proscribed activities which could not be undertaken by the former employee.[7]

In the context of restrictive covenants in partnership or employment agreements involving medical practitioners, it is well-settled that the requisite specificity may be established if the restrictive covenant prohibits an employee from "engaging in the practice of medicine or surgery" after termination of his or her employment. The primary justification for this is that the term "practice of medicine" is defined under Georgia law[8] and therefore serves to inform the employee of the specific activities in which he or she cannot engage after termination of employment.[9]

Both from the employing physician's position and the physician being employed, a premium should be placed on drafting a restrictive covenant which meets the needs of the employer while not imposing unnecessary prohibitions on the employee.

The second condition which must be established in order to enforce a restrictive covenant involves the scope of the territory in which the employee agrees to not practice subsequent to the termination of employment. Initially, courts have held in numerous cases that a territorial restriction which cannot be determined until the date of the employee's termination is too indefinite to be enforced. Therefore, restrictive covenants which indicate, for example, that the employee agrees to not practice medicine or surgery within the territory in which the employer practices *at the time of termination of employment* will be struck down as too indefinite.[10]

As to the reasonableness of a specific area or territory, this will obviously depend on the facts of the particular case. A restrictive covenant which prohibits an employee from practicing within 20 miles of the employing physician's office after termination may be a reasonable one in the context of a small community with a limited number of patients. On the other hand, this same territorial prohibition may be unreasonable in the context of a large city like Atlanta, where a prohibition against practicing medicine within a 20-mile radius of the employing physician's office may literally prevent the former employee from seeing thousands of patients.

By way of examples, the Court in one Georgia case determined that a restrictive covenant which prohibited the employee from practicing medicine within a 50-mile radius of Forest Park, Georgia, was reasonable and enforceable.[11] Similarly, a Georgia court upheld a restrictive covenant which prohibited the former employee from establishing a practice within a 20-mile radius of the clinic in which he had been employed.[12] Finally, a restrictive convenant was held to be enforceable in which the former employee agreed that he would not practice ophthalmology within a territory composed of Fulton, Clayton, Cobb, DeKalb, and Gwinnett Counties, despite the fact that 95% of his patients came from this five-county area.[13]

The third condition which must be satisfied in order to establish the enforceability of a restrictive covenant is that the time limit imposed with respect to the prohibited activity must be reasonable. As with the condition regarding territorial restrictions, this condition will depend for the most part on the particular factual situation involved. For example, it has been held that restrictive covenants which imposed 2- and 3-year limitations, respectively, on the establishment of a competing practice, were reasonable.[14] Moreover, in one Georgia case, it was held that a restrictive covenant which prohibited the establishment of a competing practice during the life of the employing physician was reasonable.[15] On the other hand, restrictive covenants which prohibited the establishment of a competing practice for the life of the employed physician, or for an indefinite period, have been struck down as being unreasonable and therefore in contravention of public policy.[16]

Some Helpful Hints

The most important consideration for those physicians who will be employing other physicians and who wish to ensure that, when their employees terminate their employment, they will not establish a competing practice, is not to be greedy and attempt to impose an all-encompassing restrictive covenant. In other words, there is no reason to impose a restrictive covenant which prohibits the employee from acting "in any capacity" when a restrictive covenant prohibiting the "practice of medicine or surgery" will do. Similarly, a restrictive covenant seeking to prevent the employee from practicing within a broad range of territory over a long period of time is not necessary if a lesser territory or time will suffice in order to protect the employing physician's interests.

From the employee's point of view, it is important to realize the seriousness of the consequences of entering into an employment or partnership agreement containing a restrictive covenant. In numerous cases, Georgia courts have failed to accept the argument espoused by the employed physician that, as a result of the restrictive covenant, the health and well-being of the citizens of the State of Georgia will be lessened because enforcement of the restrictive covenant will circumvent the urgent need for physicians to alleviate the pain and suffering of the public. The court's answer to this contention has been that, while the result of enforcing the restrictive covenant may be to limit the number of doctors in an area, the courts will not abrogate such a contract if the terms are reasonable, in that the right to enter into such a contract is well-established.[17]

Accordingly, if you are considering entering into an employment contract, you should give a great deal of thought to the practical ramifications of the restrictive covenant, in terms of the territory in which you may not practice subsequent to termination of that contract and the time limitations of such prohibition. In that regard, we have often suggested that an employee draw on a map the particular area in which he or she may not practice following termination. By doing so, the employee, prior to entering into an employment agreement containing a restrictive covenant, can see in stark terms the particular area in which he or she will be unable to practice following termination.

In sum, restrictive covenants in employment and partnership agreements have become a fact of life in the medical profession. If drafted properly so as to meet the prerequisites established by Georgia courts, a restrictive covenant which specifies with particularity the prohibited activities and which is reasonable as to time and territory will be enforced against the employed physician. On the other hand, if not drafted properly, a restrictive covenant will not be enforced, and the employing physician will thus lose the protection which served as a primary inducement to enter into the employment agreement in the first place. Consequently, both from the employer's position and from the employee's position, a premium should be placed on drafting a restrictive covenant which meets the needs of the employer and does not impose unnecessary prohibitions on the employee.

Notes

1. *Ga. Code Ann.* §20-504.
2. See, generally, Annotation, "Validity and Construction of Contractual Restrictions on Right of Medical Practitioners to Practice, Incident to Partnership Agreement," 62 ALR 3d 970 (1975).
3. *Koger Properties, Inc. v. Adams-Cates Co.*, ___ Ga. ___ (February 2, 1981); *Uni-worth Enterprices, Inc. v. Wilson*, 244 Ga. 636 (1979); *Burdine v. Brooks*, 206 Ga. 12 (1949).
4. *Redmond v. Royal Ford, Inc.*, 244 Ga. 711, 714 (1979).
5. *Howard Shultz & Assoc. v. Broniec*, 239 Ga. 181 (1977).
6. *Jenkins v. Jenkins Irrigation, Inc.*, 244 Ga. 95 (1979).
7. *Hudgins & Co., Inc. v. Cole*, ___ Ga. ___ (February 10, 1981).
8. *Ga. Code Ann.* §84-901.
9. *McMurray v. Bateman*, 221 Ga. 240 (1965); *Rakestraw v. Lanier*, 104 Ga. 188 (1898).
10. *Durham v. Stand-by Labor*, 230 Ga. 558 (1973); *Koger Properties, Inc. v. Adams-Cates Co., supra.*
11. *McMurray v. Bateman, supra.*
12. *Carroll v. Harris*, 243 Ga. 34 (1979).
13. *Raiford v. Kramer*, 231 Ga. 757 (1974).
14. *Raiford v. Kramer, supra; McMurray v. Bateman, supra.*
15. *Burdine v. Brooks, supra.*
16. *Rakestraw v. Lanier, supra.*
17. See, e.g., *Burdine v. Brooks, supra.*



Equagesic®

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol® or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

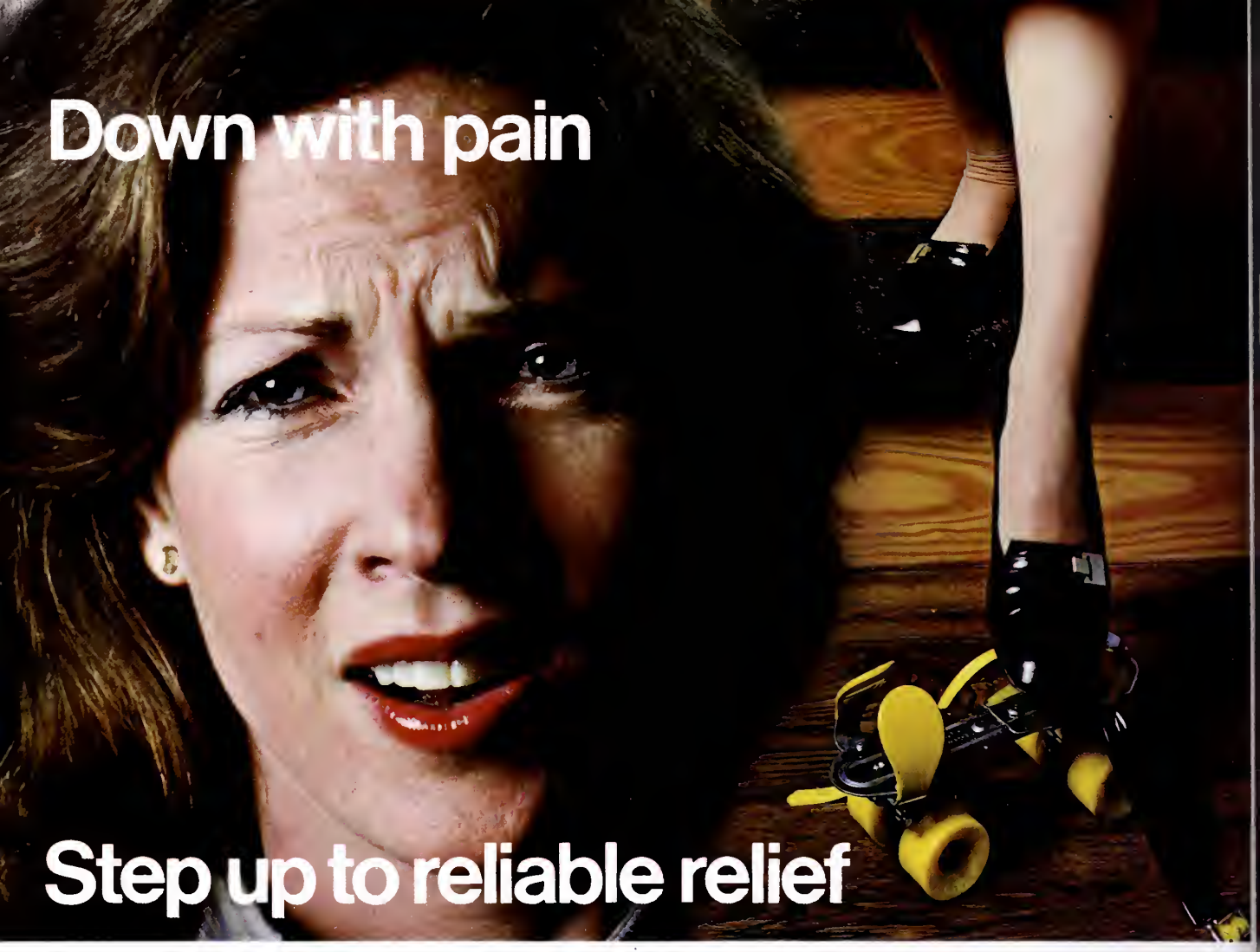
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
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for mild to moderate pain

Wygesic®(IV)

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks (e.g., driving a car or operating machinery). Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS. The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume; Cheyne-Stokes respiration; cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminoophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977).
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Recent Advances in the Management of Osteogenic Sarcoma

TAE H. KIM, M.D., THOMAS WHITESIDES, M.D., and ABDELSALAM H. RAGAB, M.D., *Atlanta**

Introduction

Osteogenic sarcoma, although rare, is the most common malignant bone tumor which mostly affects young people between 10 to 25 years of age. The majority of tumors occur in the lower extremity with a predilection for the metaphysis of the distal end of the femur.

For decades, the outlook has been dismal, with a 5-year survival of less than 20%. With the true biologic behavior and natural history of this tumor still to be unveiled, optimum therapy of osteogenic sarcoma is yet to be developed. However, due to progress made in the field of adjuvant chemotherapy and modern surgical techniques, coupled with a carefully coordinated multidisciplinary team approach, some gratifying results are being achieved in recent years, and long-term disease-free survival is now expected to reach more than 60% of the patients with no evidence of metastasis at the time of diagnosis.

The purpose of this report is to bring Georgia physicians up to date on new advances, especially in the areas of preoperative chemotherapy, limb salvaging, and aggressive surgical resection of pulmonary metastases. This discussion is also intended to present some of the limitations and controversies in actual clinical applications of this new knowledge.

Preoperative Chemotherapy

The effectiveness of chemotherapy in improving the disease-free survival of patients with osteogenic sarcoma has been documented by a number of institutions.[1-3] Preoperative treatment with effective chemotherapy is also being employed in several institutions. This approach is especially useful for patients who are considered eligible for en bloc resection.[4-5] In a recent report,[5] of 31 patients with osteogenic sarcoma treated with preoperative chemotherapy followed by surgical ablation of the primary tumor, 21 patients (68%) are surviving with no evidence of disease at a follow-up period of 30-52 months. This favorable response obtained here is believed to be the result of the early use of systemic chemotherapy

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which could have eradicated distant microfoci of disease. Preoperative therapy may also destroy bulk disease at the primary site providing evidence of the efficacy of systemic chemotherapy. The degree of cytoreduction observed during preoperative treatment may allow oncologists to adequately adjust the dose of chemotherapeutic agents and hopefully will allow patients to receive the optimal dose during the postoperative period. The use of preoperative chemotherapy also allows time for the orthopedic surgeon to plan en bloc resection of the tumor with prosthetic implantation.

The approach with preoperative therapy is, however, not always effective in destroying bulk of disease, and patients with extensive disease may, on occasion, be unable to tolerate the aggressive preoperative chemotherapy. It is also feared that preoperative chemotherapy may induce drug resistance and jeopardize the chance of eventual cure. The Pediatric Oncology Group (P.O.G.: multi-institutional study group, formerly known as SWOG, in which Emory Pediatric Oncology Division is actively participating) is also evaluating the effect of preoperative high-dose methotrexate on the amputation specimen to demonstrate the value of chemotherapy prior to a definite surgical procedure.

Limb Preservation

Ablative surgery with transmedullary amputation remains the treatment of choice in most of the extremity osteogenic sarcomas, but in carefully selected cases, limb preservation is a valid alternative to amputation.

Increasingly successful systemic pre- and post-chemotherapy made the adoption of limb salvaging possible in several institutions. The feasibility of en bloc resection of the primary tumor was originally explored in 1976 at New York Memorial Hospital[6] and subsequently practiced in other centers. Marcove and Rosen[7] now report that 66 patients were treated by en bloc resection and chemotherapy. Among these 66 patients, 74% are alive and free of disease, with mean survival time of 44 months. This preliminary result is certainly encouraging, but the question of local recurrence, utility of the limb, and long-term survival of patients will eventually determine whether or not en bloc resection in these patients is a realistic alternative to conventional radical amputation.

Unfortunately, at present, not all patients benefit from this limb salvaging technique. The surgery is not applicable to patients whose epiphyses are still open, since disproportionate growth of limbs might occur. In addition, this surgical approach is considered only for those whose tumor is localized in the bone with minimal soft tissue extension and involvement of only a short segment of the affected bone.

Management of Pulmonary Metastases

As the lung is the most common metastatic site for osteogenic sarcoma, the eventual outcome of these cases largely depends on the effective prevention and/or eradication of lung metastases. Pulmonary micrometastases, although not detected, are presumed present in the majority of patients even at the time of initial diagnosis of the disease.

1. Prophylactic Pulmonary Irradiation

Until recently, the prophylactic irradiation to the whole lung was thought to be of no value either in preventing or delaying the development of pulmonary metastases, but Breur and associates[8] in 1978 reported beneficial results of prophylactic lung irradiation, observing a significant increase in the survival in their patients who received it. With this encouraging report, coupled with the belief that chemotherapy such as methotrexate may enhance radiation effect, patients at M. D. Anderson Hospital[9] now receive prophylactic irradiation of the lungs immediately following pretreatment with high-dose methotrexate.

This approach, however, harbors potential hazards of radiation pneumonitis, myocardial damage especially in patients receiving adriamycin, and drug exacerbation of radiation effect on the skin within the radiation field.

2. Pulmonary Metastatectomies

Among the therapeutic measures for pulmonary metastases, the aggressive surgical approach utilizing thoracotomy or thoracotomies has for years received most attention, and the surgical excision(s) of the pulmonary nodules in conjunction with chemotherapy has now become a well-accepted treatment for pulmonary metastases.

Prior to 1970, survival after pulmonary metastases was almost nonexistent, but the report by Martini and associates[10] which demonstrated significantly improved survival following excisions of all pulmonary nodules has led many investigators to adopt the aggressive surgical approach in the management of patients with metastases who were once considered to have extremely poor prognoses. Multiple surgical excisions alone, however, may not prevent later relapse if microscopic residual diseases remain untouched.

Recent studies further demonstrated that patients who undergo aggressive resection of all metastatic diseases can benefit by receiving adjuvant chemotherapy. In a series of 39 patients who were treated with both aggressive metastatectomies and chemotherapy with high-dose methotrexate, 28 patients (72%) had no evidence of disease at a median follow-up of 27 months.[11]

Controversy in Chemotherapy

Although the value of adjuvant chemotherapy in the management of osteogenic sarcoma has now been clearly demonstrated by a number of institutions, some are still unconvinced that chemotherapy has been largely responsible in improving survival. Noting the changes in diagnostic techniques and improved surgical management, investigators at the Mayo Clinic felt that earlier patients in the 1960s could not be fairly compared with patients of today and pointed out the need for a prospective, randomized study to establish the role of adjuvant chemotherapy. Their randomized study soon followed, reporting that no differences in disease-free intervals have appeared between 20 patients given postoperative adjuvant chemotherapy and 17 patients not given the treatment.[12] Many investigators around the country feel, though, that a randomized trial withholding chemotherapy from any patient with osteogenic sarcoma is unethical and question the wisdom of conducting such a study at this time. This Edmonson's study[12] was greeted with criticism owing to the fact that the authors drew conclusions about trial consisting of only 37 patients. Some even doubt the validity of the study, pointing out that the patients in the study were probably selected with regard to their referral pattern and higher economic status of the patients enabling them to receive treatment much earlier in the course of the disease.

Summary

In less than decade, osteogenic sarcoma has changed from a disease with an extremely grim outlook to one that is curable in 60% of cases when the tumor is localized at the time of initial diagnosis. A significant number of patients suffering from pulmonary metastases may also attain long-term, disease-free status if treated by a multidisciplinary team experienced in the management of osteogenic sarcoma.

The important developments that allow us to treat these patients with increasing optimism include: 1) the availability of effective adjuvant chemotherapy regimens that produce tumor regression and eradicate micrometastases; 2) feasibility of limb preservation in selected patients; and 3) attainment of survival after metastases with aggressive surgical resections of all metastatic tumors. In addition, a number of immunotherapeutic approaches that may be effective and may provide alternative avenues of treatment are now available. These include tumor vaccination, transfer factor, and interferon.

Preservation of a functional limb is a desirable goal in all patients with osteogenic sarcoma but, unfortunately, not all patients benefit from the en bloc resection. The diverse range of clinical manifestations of the disease (patient's age, sex, histopathology, location and extent of tumor, and presence or absence of metastasis) mandates highly individualized therapy. Best results are obtained from treatment at a major medical center where a multidisciplinary team routinely exercises a thorough interdisciplinary approach for an orderly treatment tailored to individual cases. The surgeon in the multidisciplinary team is to have knowledge of complex principles of modern cancer surgery. The primary physician should still serve as coordinator, actively participating in major decisions, delivering supportive care, and attending to the social and psychologic needs of the patients and their families.

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president's letter



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I recommend to you, the members of MAG, a careful look at the insurance products to be offered for sale soon by MAG Mutual. Find out all about it, and if it meets your needs, then make application. MAG Mutual should provide excellent service to the profession in Georgia and is a most welcome addition to MAG's continuing efforts to help our members in their provision of the best medical care available anywhere.

L. Newton Turk III MD

L. Newton Turk, III, M.D.
President, M.A.G.

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PERSONALS

First District

C. Emory Bohler, M.D., of Brooklet, has been appointed to the Georgia Board of Human Resources. Dr. Bohler will represent the First Congressional District.

Second District

Martin S. Fodiman, M.D., has moved his general surgery practice from Sylvester to Richland.

Donald McKenzie, M.D., Thomasville, spoke at the March meeting of the American Cancer Society, Thomasville Chapter. His topic was "Carcinoma of the Prostate: Is There a State of the Art?"

Fourth District

Stanley W. Sherman, M.D., Atlanta, was recently inducted as a Fellow of the American College of Cardiology.

Fifth District

James F. Glenn, M.D., dean of Emory University School of Medicine, Atlanta, received the 1981 Hugh Hampton Young Award from the American Urological Association at the group's annual meeting in Boston in mid-May.

At their 29th Annual Clinical Meeting in Las Vegas, April 27-30, the American College of Obstetricians and Gynecologists elected **Luella Klein, M.D.,** FACOG, Atlanta, to a third term as assistant secretary.

William Knapp, M.D., has moved his practice from Atlanta to Dahlonega.

Sixth District

A. W. Bramblett, Jr., M.D., Forsyth, resigned April 13 as chairman of the Monroe County Board of Health, a position he had held for more than 25 years. The members of the Board presented Dr. Bramblett with a plaque honoring him for his community service.

James F. Glenn, M.D., dean of the Emory University School of Medicine, Atlanta, was the speaker for the second annual Clark-Holder Clinic Memorial Lecture. The Lecture is in honor of the late **J. W. Chambers, M.D.,** a respected LaGrange physician, who died in July, 1979.

Ferroll A. Sams, M.D., Fayetteville, spoke at a public forum on death and dying which was sponsored by Clayton Junior College, the Clayton County Ministers Conference, the Clayton County Bar Association, and the Clayton-Fayette Medical Society. The forum was held at Clayton Junior College.

Seventh District

J. Larry Boss, M.D., of Villa Rica, was recently appointed Assistant Clinical Professor, Department of Family Practice, Medical College of Georgia, Augusta.

Floyd James, M.D., of Dalton, has assumed the presidency of the Georgia Association of Pathologists.

Ninth District

Arthur G. Singer, M.D., a recently retired Toccoa physician, learned at a dinner in his honor that the new medical library at Stephens County Hospital will bear his name. Coats & Clark, Inc., donated $10,000 to the hospital, designating that the new library be named in Dr. Singer's honor.

Dr. and Mrs. Bruce Swain, of Clarkesville, were honored at a reception, April 12, at the Habersham County Medical Center. Dr. Swain retired Dec. 31, 1980.

Tenth District

Allen J. Dennis, Jr., M.D., and **Joseph W. Griffin, Jr., M.D.,** both of Augusta, have been named Fellows in the American College of Physicians.

SOCIETIES

The **Seventh District Medical Society** recently met at the Roman Inn in Rome, Georgia, for their semi-annual meeting. Approximately 130 physicians and their guests attended. Featured speakers were J. Caulie Gunnells, Jr., M.D., of the Duke University School of Medicine's Nephrology Department; J. Paul Atkinson, M.D., Chief, Department of Rheumatology and Immunology at Barnes Hospital, St. Louis; and Alan L. Bowen, M.D., Rome orthopedist. G. Douglas Talbott, M.D., of MAG's Disabled Doctor's Program, was the after-dinner speaker.

Joseph Wade Tollison, M.D., of the Department of Family Practice, Medical College of Georgia, spoke to the members of the **Baldwin County Medical Society** on April 8. His topic was "Hypertension."

Thomas S. Parrott, M.D., clinical assistant professor of surgery (urology) at Emory University, was the guest speaker at the **Gordon County Medical Society** on April 27.

DEATHS

James Holland Jackson, Sr.

James Holland Jackson, Sr., M.D., 77, died May 1 after a brief illness.

A native of Coweta, Dr. Jackson had practiced in Barnesville since 1931. He graduated from the Emory University School of Medicine in 1929.

Dr. Jackson was a member of the Spalding County Medical Society, the MAG, and the AMA.

Survivors include his wife, one daughter, two sons, one granddaughter, and three grandsons.

Emory Faxton Seay

E. F. Seay, M.D., 66, died May 6, 1981. A native of Taylor County, Dr. Seay lived in Marshallville and practiced there for several years before moving his practice to Fort Valley.

He was a past president of the Peachbelt Medical Association, a member of the MAG, SMA, AMA, and the American Heart Association, Georgia affiliate. He was on staff at the Peach County Hospital as a surgeon and general physician.

Survivors include his wife, two daughters, one son, four sisters, and seven grandchildren.

56th Annual Auxiliary Convention

The 56th Annual Convention of the Auxiliary to the MAG was held in May at Callaway Gardens in Pine Mountain. The theme was "Harmony of Health," with Mrs. Milton B. Satcher, of the Auxiliary to the Medical Association of Atlanta, presiding as outgoing president, and Mrs. James Sullivan, of Muscogee County, as convention chairman.

Special guest speakers for the 2-day event were Mrs. John F. Vaughan, of Vancouver, Washington, president of the American Medical Association Auxiliary, Mrs. Charles Prater, of Jellico, Tennessee, president of the Southern Medical Association Auxiliary, and Virginia Yapp Trotter, Ph.D., vice-president of the University of Georgia. *(Reported by Evelyn Gay (Mrs. Brit B., Jr.), A-MAG)*



Mrs. John F. Vaughan (back to camera) installs the new president, Mrs. Perry M.White, while Mrs. David C. Thibodeaux, president-elect, and Mrs. Arlie R. Mansberger, first vice-president, wait to take the oath.



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Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

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Presidential Address

Mrs. Perry Merrill White, *Atlanta**



I ENJOY MEDICAL AUXILIARY WORK — that part of my life that is in tandom with my husband's chosen profession. The medical profession and its auxiliary has as a primary objective improving the quality of life of all the people who seek its help. This quality of life is wide-ranging from the obvious, such as a badly fractured bone, to the not so obvious, such as a little old mother in a nursing home who needs someone to care and to understand. The quality of life is the difference between a life of frustration and existence *only* and a life full of the joy of living.

As I faced the question, "What do I want to accomplish during the year that I am President of the Auxiliary to the Medical Association of Georgia and what goals should be set for the Auxiliary?", it was evident that the *thrust* should be improving the quality of life, so I selected the *theme,* "Project a Positive Profile: Mentally, Physically, and Spiritually."

With the theme and the thrust in mind, I would like to suggest some specific areas that need our attention: *the aged, the medical marriage, the physical life* as it is affected by stress, the *spiritual life* as it affects the total being, the *mental attitude* towards retirement, and the *medical family*.

Dealing with *the aged* is an area that has an ever increasing importance in our lives. People are living longer, which produces more old people. If you have not experienced the presence of an aged parent or grandparent, the chances are that you will — to say nothing of being one yourself someday! How do we deal with the aged person in such a way that they remain independent as long as possible in a secure situation and are able to get the most happiness out of their life? How can the Auxiliary add a little sunshine to the lives of the aged in nursing homes who are all too often forgotten by their own children?

Emphasis will also be placed on the *quality of life of the family* — especially the medical family. We have heard the saying, "A family that prays together stays together." While I recognize that the medical auxiliary is composed of people of all creeds, the fact remains that all people have a spiritual side. We as adults need to know how we are going to address this spiritual side, otherwise we open the door for the heartache that accompanies expressions of frustration acted out in drug abuse, alcohol abuse, runaway children, the rise of cults in our society (remember the 60s and the tragic hippy movement?), and the tremendously high suicide rate of teenagers, and of equal concern the high suicide rate of our medical men. We want to address the wholeness of life, urging all families to know where they stand spiritually and not to be bashful in the expression of their faith.

In an effort to help the younger *medical marriages* have a better chance of success, the Auxiliary is planning a joint workshop with the MAG for resident physicians and their spouses. The topics will be "Making the Medical Marriage Work" and "Starting Your Practice." Mississippi, Tennessee, South Carolina, and Alabama have been asked to join us in this effort.

Emphasis will be placed on improving the *quality of our physical life*. For the third year the AMA-Auxiliary has voted to sponsor their program nationwide, "Shape Up For Life." Previous emphasis has been on physical exercise. This year the emphasis will be on dealing with stress. We as spouses of medical men can never fully appreciate the stress that is inherent in the day-to-day activities of our spouses's profession. The stress of having to deal on a one-to-one basis with the problems of others and of

* Mrs. White is the new President of the Auxiliary to the MAG. This is a condensed version of her speech at Annual Convention, 5-9-81.

making hundreds of decisions. The stress of having to wait for the operating room when there are many more chores that call for his time and that must be attended to. Do we stop to realize that at intervals of from 5 to 30 minutes all the working day long, the doctor must change his pace and his attitude to suit a different patient? He must make decisions relating to different circumstances within each time frame. All this is in addition to the stress of trying to get home for dinner with the family or to Johnny's football game or to Susie's recital. Do we as spouses understand, really, this stress and try to make the homecoming pleasant and relaxing? Or are we upset over the unpredictable timing and the fallen souffle?

As for the *mental quality of life*, we as a group are surely blessed. Let's face it, we are not married to dullards. The profession excells in the traditional way of mental achievement. With this in mind, this year we will direct the emphasis towards hobbies, preparation for retirement, and the ability to relax.

The Auxiliary will continue to inform its members about the Impaired Physician Program. We will continue to sell advertising space in the MAG *Journal*. This year, however, the profits made by the county selling the advertising space can be used by that county auxiliary to fund their own county projects, if they wish, or be sent to the William R. Dancy, M.D. Student Loan Fund or the AMA-Education and Research Foundation. The state auxiliary will continue



Mrs. Perry M. White, president (left, front row), is shown with her new officers for 1981-1982: (front row, to her left) Mrs. David C. Thibodeaux, president-elect; Mrs. Arlie R. Mansberger, first vice-president; Mrs. George R. Jones, second vice-president; Mrs. Jack Smith, third vice-president; Mrs. George Galloway, historian; (back row, left to right) Mrs. Charles Rey, N.W. Area vice-president; Mrs. Charles Thomas, N.E. Area vice-president; Mrs. Maurice G. Patton, treasurer; Mrs. Thomas W. Marks, corresponding secretary. (Not shown: Mrs. George Chastain, S.W. Area vice-president; Mrs. Neal Yeomans, S.E. Area vice-president; and Mrs. Charles Walden, recording secretary.)

to work through our Public Relations Chairman to implement the radio spots in each county, adding to this the distribution of TV spots on cadaver organ donations.

As we in the Auxiliary endeavor to "Improve the Quality of Life" of the aged, of the family, of the medical marriage and of the physician, we will endeavor to "Project a Positive Profile: Mentally, Physically and Spiritually."

Ridgeview Institute

Ridgeview Institute is a private, non-profit, fully accredited psychiatric hospital located less than 20 minutes from downtown Atlanta. Ridgeview offers three individual, fully-accredited, separately-housed programs in alcohol and drug treatment, adult, and adolescent psychiatry.

A full range of treatment methods are available and a high staff-patient ratio assures individualized attention. Bright, warm colors and sunny interiors provide a non-institutional atmosphere as patients participate in a wide range of theraupetic and recreational activities.

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This program offers a multi-dimensional treatment and rehabilitation program aimed at helping those afflicted with the disease of alcoholism or drug addiction. A variety of groups and activities are led by trained, experienced addiction counselors and therapists. Alcoholics Anonymous and Narcotics Anonymous are intrical parts of the program.

Adult Psychiatric Program

Under the psychiatrist's leadership, patients on the adult unit are treated individually for depression, anxiety, schizophrenia, manic depressive illnesses, personality disorders and other similar disfunctions. The physician and treatment team work closely together on the patient's assets as well as problems in the social, psychological and physical areas.

Adolescent Program

This unique program offers a wide range of treatment modes and emphasis is placed on resolving the emotional, behavorial and educational difficulties involving this age group. A fully accredited school lets the young people continue their education during the inpatient process. Classes are small and credits earned at Ridgeview are transferred back to their schools.

Ridgeview INSTITUTE

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Classifieds

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Internist, board eligible/certified generalist wanted to join established group of 3 internists and 3 surgeons. Excellent Southeastern Tennessee location. Starting salary negotiable leading to full corporate participation. Box 6-A, c/o the *Journal*.

Family Physicians desperately needed to locate in West Central Alabama rural communities, one hour from Birmingham. Faculty appointment with Family Practice Center at University of Alabama if qualified. Join established practice or work individually. Salary of $42,000 to $55,000 guaranteed until practice is self-sufficient. Generous fringe benefits include life, disability, health, retirement, and malpractice insurance, two weeks continuing education, and three weeks annual leave. All equipment, including X-rays and lab, furniture, and supplies provided. If invited to visit, all expenses will be paid. All moving expenses covered. Write Health Development Corporation, P. O. Box 1486, Tuscaloosa, Alabama 35403, or telephone Frank Cochran *collect* at (205) 758-7545 for more information.

Emergency Medicine Opportunities: Clinical and directorship positions available in central and coastal Georgia. Excellent compensation, paid malpractice insurance, and flexible scheduling according to individual needs. For details, send credentials in confidence to Mary Obsitnik, 9100 Purdue, Suite 119, Indianapolis, IN 46268, or collect (317) 875-7518.

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MEETING ANNOUNCEMENT

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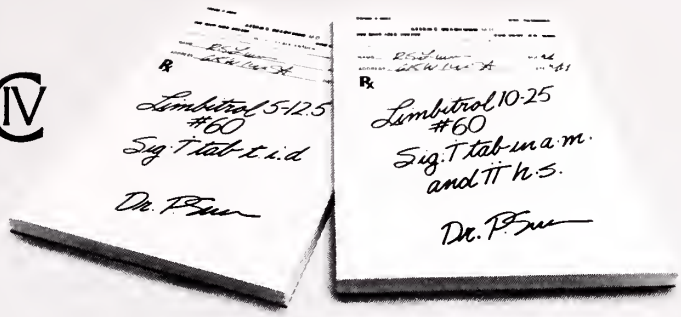
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n anxious depression,

SPECIFIC FOR THE NONPSYCHOTIC PATIENT

Fits the picture of anxiety/depression correlation

Most patients with a mood disorder have a mixture of anxiety and depression. One clinician[1] found a correlation of 0.7 in anxiety and depression scores; another[2] has estimated that 7 of 10 nonpsychotic depressed patients are also anxious. For the dual symptomatology of anxious depression, Limbitrol provides dual medication.

More appropriate for the nonpsychotic depressed and anxious patient

Limbitrol contains both amitriptyline, specific for symptoms of depression, and a benzodiazepine, specific for the symptoms of anxiety. Thus it is a better choice than other dual agents for anxious depression that contain a phenothiazine, a class of antipsychotic drugs less specific for anxiety and now generally avoided in nonpsychotic patients.[2,3]

Avoids the risk of tardive dyskinesia carried by the phenothiazine combinations

The causal relationship between the phenothiazines and other extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

References: 1. Cloghorn J: *Psychosomotics 11*:438-441, Sept-Oct 1970. **2.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **3.** Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p. 999

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

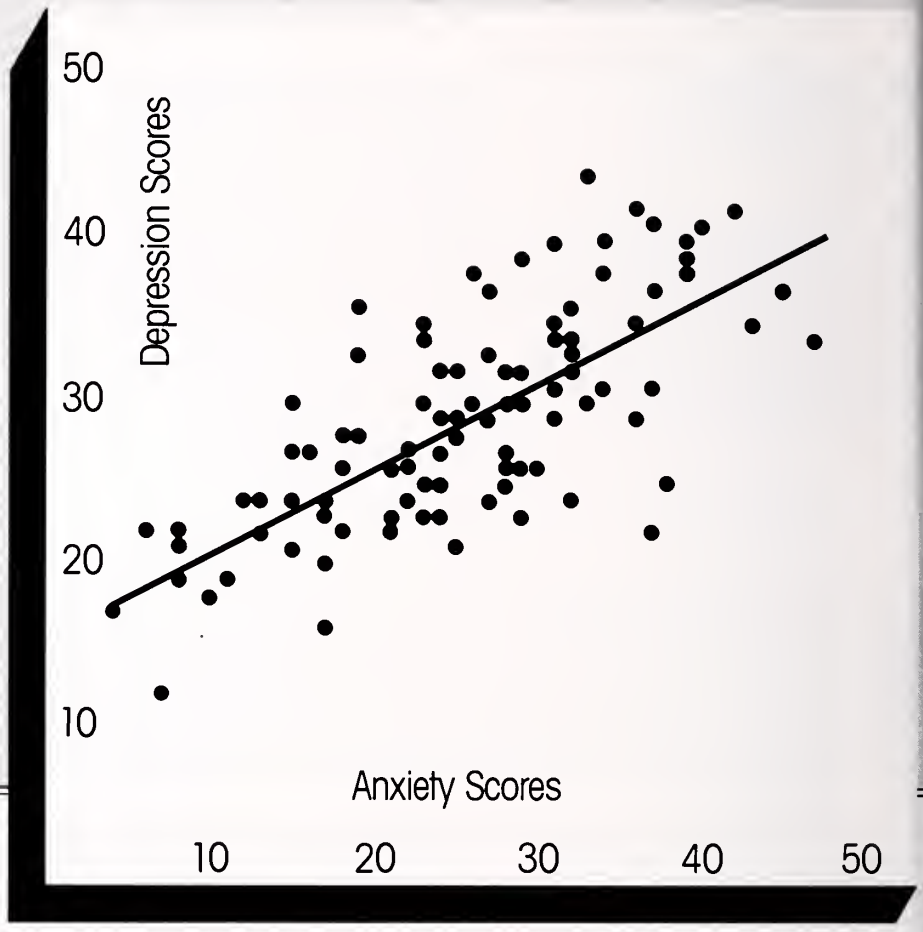
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

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The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scale in 100 nonpsychotic psychiatric patients. The Coefficient of Correlation is 0.7. As depression increased, so did the anxiety levels.
—Adapted from Claghorn J[1]

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1. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970

Please see summary of product information on preceding page.

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STYLE — Ordinarily articles should not exceed 3,000 words. Only under exceptional circumstances will articles of over 4,000 words be published. Footnotes, bibliographies, and legends should be typed on separate sheets, double-spaced. Bibliographies should conform to the following style: name of author (with initials), title of article, name of periodical, date, volume (number, if available), and pages.

> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

NEWS NOTES — District and county medical societies, Association members, and readers are invited to send in any news items of general concern to members of the Medical Association of Georgia.

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Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentory) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

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Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
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Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
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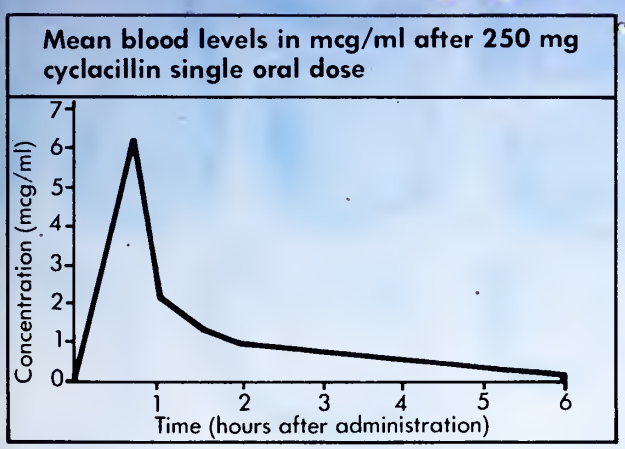
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AUGUST/1981

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November 20-22
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Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/ Roche)℞, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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THE COVER

Cover design by Dottie Crain of Ad-Vantage, Inc., Atlanta.

Incidental Intelligence . . .

Extent of FTC Authority to be Decided by Supreme Court and New Federal Legislation

The question of whether the federal government has the right to forbid professional associations such as the AMA from enforcing ethical restrictions against advertising will be decided by the Supreme Court.

In a brief order, the Court agreed to hear the AMA's appeal from the 1979 FTC ruling that barred the AMA from involving itself in physician advertising unless the advertising would be "false or deceptive" as defined by the FTC. After an Appeals Court by a 2-1 vote upheld the FTC last October, the AMA went to the Supreme Court, declaring the case is of "enormous importance" because it allows the government to "prevent professionals who have voluntarily associated together from taking a position against promotional practices which they believe to be deceptive."

As is customary, the high court gave no explanation for accepting the case for review. A hearing will be held this fall, following the summer recess. A decision will not be issued until later, probably next year.

The Supreme Court was asked to hear the case "before responsible medical societies . . . simply abdicate the field to a government agency (FTC), which itself acknowledges that it is incapable of drafting precise guidelines."

Joining the AMA in the appeal were the Connecticut State Medical Society and the New Haven County Medical Association both of which were named in the FTC's original 1975 complaint. The American Dental Association supported the AMA position and has agreed to abide by rules similar to those set out for the AMA.

The FTC has been challenged from another quarter. Legislation has been introduced in Congress to impose a moratorium on the FTC's moves against state-regulated professions, including the medical profession.

Rep. Thomas Luken (D-Ohio) has told the House that "one of the most questionable and controversial areas of expansion by the FTC in recent years has been its involvement in activities of state regulated professions." He continued: "Even though it has never been given express authority by Congress to do so, it has increasingly sought to usurp state responsibility, override state laws, and preempt state regulation of state regulated professions."

Luken said his bill would impose a moratorium on FTC action in the area until Congress determines what appropriate role, if any, the Commission should have with respect to state-regulated professions.

Introduction of the legislation by Rep. Luken and Rep. Gary Lee (R-N.Y.) came shortly after word arrived from the FTC that it is preparing to release a lengthy study on the influence of professional health associations in planning, peer review, and rate-setting. A few days later, the Supreme Court announced its decision to hear the AMA versus FTC advertising ethics case.

Auxiliary Holds Summer Executive Board Meeting in Macon

The Auxiliary to the Medical Association of Georgia, under the direction of its new president, Mrs. Perry M. White, of Atlanta, got off to a lively start with the Summer Executive Board Meeting held at Mercer University in Macon in June. Ms. Edith Floyd, of Macon, addressed the opening session on "Parliamentary Pointers."

Workshops were presented at the 2-day event and were well attended. With Mrs. Joseph R. B. Hutchinson (Mickey), of Atlanta, editor of *Pulse Line,* in charge, Mrs. Joann Durand, from a Macon print shop, gave auxiliary members many valuable suggestions for producing attractive and informative newsletters. Ms. Gerre Price, chairman of the Department of Speech and Drama at Mercer University, conducted a public speaking workshop.

Other workshops were on: county presidents-elect, led by Mrs. David C. Thibodeaux, Cobb County; membership chairmen, Mrs. Arlie Mansberger, Jr., Richmond County; program chairmen, Mrs. George R. Jones, DeKalb County; county presidents, Mrs. Perry M. White, Atlanta; public relations chairmen (radio and TV spots), Mrs. Michel Glucksman, Glynn County; AMA-ERF chairmen, Mrs. Frank A. Isele, Dougherty County; and county treasurers, Mrs. Maurice Patton, Richmond County.



Mrs. Joseph R. B. Hutchinson, editor of *Pulse Line,* was leader of a Newsletter Workshop at the board meeting in Macon in June.

MEDICAL MEETING CALENDAR

AUGUST

21-22—*Asheville, NC;* **Therapy of Schizophrenia** (Sponsored by the Georgia Psychiatric Association); Category 1 credit; Contact: Harold L. McPheeters, M.D., 130 Sixth St., N.W., Atlanta 30313. PH:404/875-9211.

26—*Atlanta;* **Media: Computer Utilization for Health Professionals;** Contact: Michael S. Rogers, College of Health Sciences, Ga. State University, University Plaza, Atlanta 30303. PH:404/658-3067.

29-30—*Callaway Gardens:* **Joint Interim Meeting of the Georgia and Alabama Societies of Anesthesiologists;** Contact: C. F. Johnson, Jr., M.D., Ga. Society of Anesthesiologists, MCG Sch. of Med., Augusta 30912. PH:404/828-3871.

30-Sept. 3—*Atlanta;* **Demonstrations in Percutaneous Transluminal Angioplasty (PTA) VI;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

SEPTEMBER

9-11—*Atlanta;* **Update in Cardiology—Cardiology Board Review Program;** Contact: Registration Secretary, Extramural Programs Dept., American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20014. PH:301/897-5400.

10-11—*Atlanta;* **Handicapping Conditions in Infancy—Identification, Habilitation, Prevention;** Contact: R. Dwain Blackston, M.D., Developmental Evaluation Clinic, 440 Winn Way, Decatur 30030. PH:404/294-3735.

11—*Atlanta;* **Diabetic Retinopathy Course;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Road, NE, Atlanta 30322. PH:404/659-5653.

16-18—*Atlanta;* **The State of the Art and the Science of Fitness and the Disabled;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

17-19—*Hilton Head, SC;* **Third Annual Frontiers in Nutrition Conference;** Category 1 credit; Contact: Sandra J. Edwards, Ph.D., Department of Medicine, MCG, School of Medicine, Augusta 30912.

18-19—*Atlanta;* **Ocutome Workshop;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

23-25—*Savannah;* **Neonatology;** Category 1 credit; Contact: Division of Continuing Education, MCG Sch. of Med., Augusta 30312. PH:404/828-3967.

25-26—*Hilton Head, SC;* **Myofascial Pain Syndromes;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

25-27—*Savannah:* **33rd Annual Meeting and Scientific Sessions, American Heart Association, Georgia Affiliate;** Category 1 credit; Contact: Sheree Gubernik, AHA-GA, 2581 Piedmont Ave., NE, Atlanta 30324. PH:404/261-2260.

28-30—*Augusta;* **Critical Care Nursing;** Category 1 credit; Contact: Div. of Cont. Ed., MCG Sch. of Med., Augusta 30912. PH:404/828-3967.

OCTOBER

5-7—*Macon;* **Perspectives on Rural Health and Medicine Education;** Contact: Barbara Lowrey, Office of Community Programs, Mercer Univ. Sch. of Med., Macon 31207. PH:912/744-2600.

7-8—*Augusta;* **Orthopedic Nursing;** Category 1 credit; Contact: Division of Continuing Education, MCG Sch. of Med., Augusta 30912. PH:404/828-3967.

9-10—*Atlanta;* **Complications of Angiography;** Category 1 credit; Contact: Peter J. Sones, M.D., Section of Radiology, Emory Univ. Clinic, 1365 Clifton Rd., NE, Atlanta 30322.

11-14—*Unicoi State Park;* **Psychiatric Institute on Group Behavior and Group Leadership;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/659-5653.

14-15—*Atlanta;* **Georgia Chapter, American Academy of Pediatrics;** Category 1 credit; Contact: David L. Morgan, M.D., 1901 Century Blvd. NE, Ste. 20, Atlanta 30345. PH:404/633-4595.

14-17—*Hilton Head, SC;* **Third Annual Symposium on the "Clinical Management of Diabetes and Endocrine Disorders";** Category 1 credit; Contact: Edwin D. Bransome, Jr., M.D., MCG Sch. of Med., Augusta 30912. PH:404/828-3445.

15-18—*Sea Island;* **1981 Annual Meeting of the Georgia Orthopedic Society;** Category 1 credit; Contact: James E. Averett, Jr., M.D., 105 Collier Rd., Ste. 2010, Atlanta 30309. PH:404/355-1798.

16-18—*Callaway Gardens;* **Georgia Gastroenterologic Society Annual Meeting;** Category 1 credit; Contact: Jack M. Averett, Jr., M.D., 2300 Manchester Expressway, Columbus 31904. PH:404/323-3671.

19-23—*Atlanta;* **66th Annual Clinical Congress of the American College of Surgeons;** Category 1 credit; Contact: Dianne Currie O'Rourke, Mgr. of Public Information, American College of Surgeons, 55 E. Erie St., Chicago, IL 60611. PH:312/644-4050, X 324.

22-24—*Augusta;* **Medical Fair and Pre-Practice Seminar — A Physicians' and Dentists' Recruitment Program for Rural Areas in Georgia;** Contact: Bert Franco, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or (in Georgia) 800/282-0224.

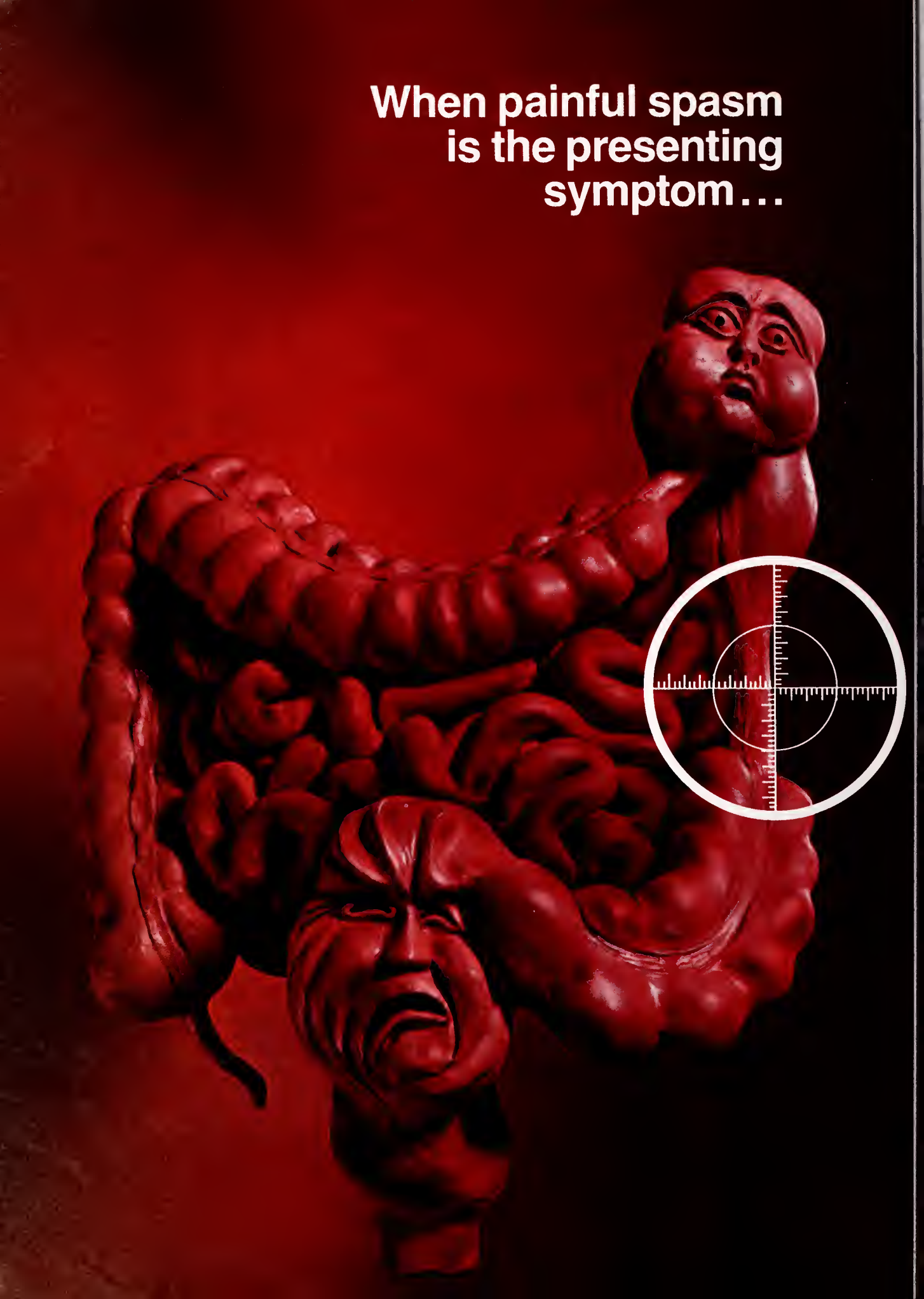
23-24—*Atlanta;* **GU Radiology;** Category 1 credit; Contact: Associate Dean for CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta, 30322. PH:404/659-5653.

23-25—*Atlanta;* **Cardiac Ischemia & Arrhythmias — Current Concepts for Diagnosis and Treatment;** Contact: International Medical Education Corp., 64 Inverness Dr., East Englewood, CO 80112. PH:800/525-8646.

22-24—*Gainesville, FL;* **Applications of Psychiatry to Family Practice;** Category 1 credit; Contact: Office of CME, Univ. of Florida College of Med., Box J-233, JHM Health Center, Gainesville, FL 32610. PH:904/392-3143 or 392-3183.

30-31—*Hilton Head, SC;* **Allergy and Immunology for the Clinician;** Category 1 credit; Contact: A. J. Kimber, American Academy of Allergy, 611 E. Wells St., Milwaukee, WI 53202. PH:414/272-6071.

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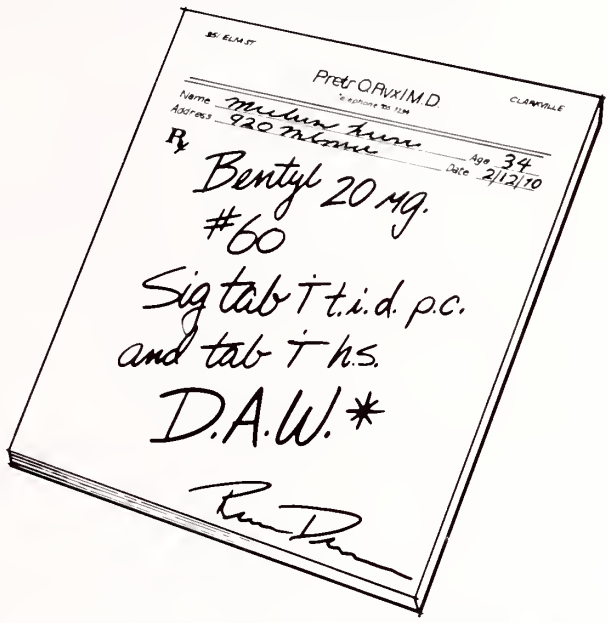
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*D.A.W.-Dispense as written

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- Bentyl bioavailability of tablets, capsules, syrup and injectable is evidence of its prompt absorption.
- Bentyl helps control abnormal gastrointestinal motor activity with minimal anticholinergic side effects. (See Warnings, Contraindications, Precautions, and Adverse Reactions on next page.)
- The bioequivalence of the oral dosage forms permits a choice of tablet, capsules, or syrup that satisfies patient's dosage preferences.
- Significant pharmacologic effect in the distal colon compared to placebo,[1] shows how Bentyl controls abnormal motor activity in the irritable colon patient.*

*This drug has been classified "probably" effective for this indication.

Merrell Dow

Reference:
1. Chowdhury AR and Lorber SH: Personal communication, 1980.

(See Product Information on the next page before prescribing Bentyl.)

Although the dose of Bentyl used to show pharmacologic effect was 50 mg, which is a higher single dose than that permitted in the labeling, the dose was considered justified, since the recommended daily dose of injectable Bentyl is 20 mg (2 ml) every 4 to 6 hours. Thus, in 8 hours, a patient could receive a total of 60 mg I.M. and, at that time, as a result of the sustained plasma levels from the 20 mg injections at 0 and 4 hours, might show an even higher plasma level than occurs after a single 50 mg dose. Presumably, the same pharmacologic effect would follow. These observations do not constitute evidence of efficacy.

Bentyl®

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the following indications as "probably" effective.

For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus; intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and/or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.

Use with caution in patients with:

Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.

Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.

Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/ antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention, blurred vision and tachycardia; palpitations; mydriasis; cycloplegia, increased ocular tension, loss of taste; headache, nervousness, drowsiness; weakness; dizziness; insomnia, nausea, vomiting, impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.

Usual Dosage

Bentyl 10 mg. capsule and syrup: *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children*: 1 capsule or teaspoonful syrup three or four times daily. *Infants*: ½ teaspoonful syrup three or four times daily. (Dilute with equal volume of water.)

Bentyl 20 mg.: *Adults*: 1 tablet three or four times daily.

Bentyl Injection: *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only.

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MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

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The Medical Association of Georgia's Disabled Doctors Program — A 5-Year Review

G. DOUGLAS TALBOTT, M.D., A. CULLEN RICHARDSON, JR., M.D., JAMES S. MASHBURN, M.D., and EARL B. BENSON, M.D. *Atlanta**

In 1975, the Medical Association of Georgia initiated a Disabled Doctors Program.[1, 2] This Program is for those physicians impaired with chemical dependency, (alcohol and/or other drug addictions), and/or psychiatric disorders. A characterization by analysis of the data base on the first 200 patients revealed that 87% were suffering from alcoholism and/or other drug addictions, 5% were afflicted with primary psychiatric disease, and 8% had both diseases. It is only these two diseases that the Disabled Doctors Program treats. The senile physician, the physician with neurologic and degenerative central nervous system diseases, and the immoral or criminal doctor is not involved in our Program unless the above two diseases are primary. Over 300 physicians have been enrolled in our Program, and the following is a review of the Program since its inception.

Characterizations of the Disabled Doctor

The analytical data base was necessary to not only review the Program but also to assess quality control and "data feedback" for possible modification. The collection of these data continues. The authors are in the process of building a more sophisticated base for analytical characterization of the disabled doctor. The following represent some of the primary characteristics identified to date:

1. There is a much higher incidence of these two diseases among physicians than is generally recognized.
2. American society as a whole, as well as physicians, do not want to acknowledge the disabled doctor, so a "conspiracy of silence" exists.
3. Disabled doctors utilize an extensive denial pattern.
4. Disabled doctors often cannot reach out for help; consequently, it is necessary for "outsiders" to intervene and confront him or her.
5. Because of these factors, the disabled doctor is difficult to identify and motivate.
6. Chemical dependency among physicians can be characterized as a chronic, progressive, multidisciplinary and relapsing disease involving the entire family.
7. Traditional, 1-month treatment programs are inadequate for disabled doctors.
8. A successful disabled doctors program needs state medical society sponsorship.
9. Recovery of any disabled doctor is very high when an appropriate treatment model such as the Georgia Disabled Doctors Program is followed.

Organizational Stucture of the Program

The organizational structure of the Georgia Disabled Doctors Program demonstrates two basic premises (Figure 1). First, the program is designed to exercise quality control of medicine in Georgia and to protect Georgia patients. Second, this is an

* Dr. Talbott is Program Director; Dr. Richardson is Chairman; Dr. Mashburn is Chairman, Advisory Committee; and Dr. Benson is Medical Director, Disabled Doctors Program, Medical Association of Georgia. Send reprint requests to Dr. Talbott at 3985 South Cobb Dr., Ste. 210, Smyrna, GA 30080.

advocacy program for the impaired physician, substituting intervention, confrontation, motivation, and treatment for punitive measures. Such advocacy is based experimentally upon a contracted, tightly structured,and closely monitored 2-year treatment program with an established high rate of recovery.

This Program has become a prime project of the MAG both in conscience and in funding. The Association is truly establishing and modeling the Program after its motto of "Doctors Helping Doctors." Sensitive to the issues of patient and public safety, the MAG has provided quality control of medicine in its state for impaired physicians.

Identification and Motivation of the Impaired Physician

Because of the incredibly high denial by the disabled doctor, coupled with the firmly entrenched conspiracy of the silence of families, peers, employees, hospital personnel, and even patients, identification of the impaired physician is often initially difficult (Figure 2). Verification is established principally by peer contact. This is possible not only because of the extensive educative process that the MAG has pursued in the medical communities throughout the state but also to the network of Program "graduates" that exists.

Once identified, motivation is accomplished by intervention and confrontation. Two physicians from the Program who have had no previous social or professional contact with the patient visit the patient in his or her home town. They visit him/her at least twice, carrying the following checklist on a wallet-sized card:

1. Goals and objectives clearly defined.
2. Defenses and denial anticipated.
3. Specific treatment plans.
4. Documentation of disease.
5. Support systems mobilized.
6. Adequate time.
7. No relationship to disabled doctor.

The Program physicians stress the advocacy nature of the Program and the disease concept of the illness that has affected the impaired physician. If after reminding the disabled doctor of his or her right to ask them to leave and they are requested to do so, they then make a second visit. If after the second visit they are asked to leave, then a second, and if necessary, a third team will each visit the disabled doctor at least twice. This so-called "platooning" has been very successful. Stressed by all the visiting teams is the fact that this is an advocacy program, that the teams represent the Association, and documentation of the illness as well as specific treatment plans are presented to the impaired physician. Critical to the success of intervention in Georgia has been the inclusion of the significant support systems such as spouse, children, peers, administrators, and nurses. Documentation, not gossip or rumor, is established, such as prescriptions obtained from the local pharmacies, etc. Numerous workshops on confrontation for other states have been presented. The techniques and details of confrontation and intervention are described in a book soon to be published.[4]

Steps in the Program

An initial 4-month treatment program has been evolved in the MAG plan, followed by a carefully monitored, 20-month aftercare program. Obviously, there is individuality and flexibility built into the program — not all physicians go through the above initial 4-month program. However, our 5 years of experience show that the high success rate is obtained by those who adhere to our proven treatment methods. Therefore, all physicians are strongly encouraged to follow our Program as prescribed.

Although disabled doctors are often difficult to identify because of self denial and a related "conspiracy of silence" among those close to them, their chances of recovery are high if they participate in this particular Program.

Critical is the initial 96-hour triage. This is performed in the diagnostic detoxification unit in the adjacent general hospital. Three diagnostic specialist teams, the psychologists utilizing psychometrics and other psychologic testing techniques, the psychiatrist, and the addictive disease team assess the patient to distinguish chemical dependency disease, psychiatric disease, and/or the presence of both diseases. As has been previously pointed out, physicians who are suffering from predominantly neurologic disorders, far advanced malignancies which require addictive agents, are immoral or illegal, or suffering from senility are not treated in our Program. The disabled patient is quickly started on detoxification. Ideally, within 96 hours, the patient is transferred to the treatment unit at Ridgeview Institute if the patient and his family agree. Ridgeview Institute has been physically structured, administratively oriented, and staff trained to treat disabled doctors in the past 3 years. Most doctors in the MAG Program choose to go to this non-profit institute. To date, it has donated over $150,000 of free bed time to the MAG's Program. It is important to emphasize, however, that Phase I treatment programs have been successful at other rehabilitation centers such as Hazelden, Chit Chat, Smithers, Mayo Clinic, Men-

Figure 1 — Organizational Structure of the Medical Association of Georgia's Disabled Doctors Program

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ninger's, Peachtree-Parkwood, Willingway, Alina Lodge, Heart-view, etc. The Treatment and Management Team continues to find new centers that are able to meet the special needs of each disabled doctor during this initial phase.

Phase II of the Program represents an initial transfer of the patient from a rehabilitation center to a transitional living facility[5] while continuing as an outpatient at the DeKalb Addiction Clinic. The traditional living facilities are traditional halfway houses which are structured to serve mainly impaired professionals in a mixed population of limited size. This continues to promote the true peer group therapy which allows doctors to be treated with other doctors and breaks through the "M.D. Deity Denial" pattern. Metro Atlanta Recovery Residence, Inc., headed by Mr. Donnie Brown and supported by the Auxiliary to the MAG and the Junior League of Atlanta directs these facilities. They are limited to 8-10 patients, enough to be seated around a dining room table. A rigorous, highly structured program is conducted in the evenings which varies from group therapy, lectures, and individual counseling, with particular emphasis given to attending Alcoholics and Narcotics Anonymous meetings.

In the second month, the impaired physician attends an outpatient treatment program based on the disease concept model as designed and taught by Dr. Talbott. This 29-day program is headed by Mr. George Dominick, an experienced and recognized director, at the DeKalb Addiction Clinic, and his trained staff. The Clinic's treatment program is tailored to the individual needs of each disabled doctor, so that his or her length of stay may vary. Mr. Dominick and his staff meet weekly with the Treatment and Management Team, under the leadership of Dr. Melvin Udel, to determine when to move the patient to the third phase of the Program.



Figure 2

Phase III utilizes a modality of treatment coined by the senior author as "Mirror Image Therapy." Independent of the specialty of the disabled doctor, he or she is designated as an addictionology trainee at a Mission. Treating patients with his or her own disease, the impaired physician encounters the patient's denial, deals with the hostility and anxiety, treats the family disease, and shares the multiple problems of recovery that his or her patient experiences. In doing so, the disabled doctor is able to see himself or herself mirrored, so to speak, in the addicted patients' behaviours and feelings. The latter's emotions and conduct are often identical to those the disabled doctor has experienced. In the surroundings of the Mission, the skid row area, private and public alcohol and drug treatment centers, or with private practitioners, the underlying message is silently repeated again and again to the impaired physician that "there but for the grace of God go I." Special effort is expended in allowing the disabled doctors to treat newly impaired physicians coming into the Program. This is so the disabled doctor may truly treat his or her own disease in their own peers. This is a very special kind of mirror image therapy and strongly reinforces the uniqueness of the disabled doctor's denial pattern and the special problems he or she may possess.

Medical Student Involvement

In the last 2 months of the initial treatment program, medical students are used extensively in three ways. First, they are constantly visiting the unit on clerkship rotation so the disabled doctor becomes accustomed to their presence. The value of this is the restoration of dignity and self worth to the physician who has lost his or her self esteem in the development of the disease of chemical dependency. Contact, dialogue, and teaching the medical student restores self worth. Second, during Phase III, which

includes the third and fourth months, the majority of disabled doctors are asked to appear in groups of five before the junior medical student class at Emory University School of Medicine and conduct a 2-hour seminar entitled, "It Couldn't Happen To Me." This is a story of their journey into alcoholism and/or drug addiction and a revelation of their beginning pilgrimage to recovery. Third, a list of events, situations, feelings, and emotions have been constructed which eventually lead to drug abuse and addiction in the impaired physician. Both the medical students and the physicians who suffer from the disease of chemical dependency and psychiatric disorders have entitled this list "Things I Wish They Had Taught Me in Medical School." Every 2 months in groups of 10 to 15 students, their wives or "significant others" meet with a group of graduate physicians and physicians still in treatment with their spouses for a 4 to 5 hour discussion held in the Program Director's home. A stimulating evening of dialogue addresses such issues as (1) what is the difference between a doctor-father and a layman-father, doctor-wife and a nonprofessional-wife; (2) what criteria for the specialty you choose; (3) how do you choose a partner, clinic, or group, and what are your criteria for such a choice; and (4) how much money do you want to make, what kind of lifestyle do you want to lead, and what do you want to make, and what do you consider leisure time and hobbies. The list of topics discussed has now grown to 27. There is an obvious two-way benefit from these disabled doctors-students dialogues. The details of these evening sessions and the medical students experiences are being published elsewhere.

The Caduceus Club

At the beginning of Phase I, the disabled doctor is introduced to the Caduceus Club. Composed of a group of physicians and other impaired professionals with their spouses or "significant others," and families, this group has been meeting weekly for the past 5 years. At these meetings, the Alcoholics Anonymous format is followed for 2 weeks of the month and a scientific format is used for the other 2 weeks. The meetings last from 60 to 90 minutes. They are preceded by a 90-minute group session led by a therapist who is a trained counselor, not an impaired physician. These therapy sessions are divided into four separate groups, disabled doctors who have graduated, those who are still in treatment, and similar groups related to the spouses or "significant others" of the impaired physicians. Caduceus Club, therefore, provides not only weekly fellowship and self help but also provides a monitoring and surveillance system that continues throughout the 2-year treatment. It is also a vehicle for long-term aftercare and frequently functions as a transition bridge for the impaired physician into mixed, general Alcoholics Anonymous groups. Once a year, an annual Caduceus Club retreat is held with the return of former graduates in a relaxed, informal retreat setting.

The recovery success rate of the MAG's Disabled Doctors Program is equivalent to a graduating class from medical school every 3 years.

The understanding and appreciation of the family-disease nature of this illness has resulted in the involvement of the family members from the beginning of treatment. This is accomplished through individual family therapy, group family therapy, Al-Anon and Al-Ateen couples therapy workshops, and lecture series. Significant is the fact that the families are also involved in the confrontation-intervention of the imparied physician; they also follow the treatment program and the re-entry phase.

Re-entry and Aftercare

The disabled doctor, having been identified and verified, motivated for treatment through intervention, treated for a 4-month period with emphasis on peer group treatment in transitional living facilities, mirror image therapy, medical student participation, and family involvement, is now ready for re-entry. Analysis of the data has shown that a 40% recovery rate can be attributed to the first 4-month treatment program, but 60% is dependent on the aftercare and treatment portion of the plan. The 60% recovery rate is tied to the 20 months of aftercare, and the principal element is a tightly structured aftercare contract (Figure 3). This contract usually dictates weekly attendance in the Caduceus Club, attendance three or four times a week to Alcoholics or Narcotics Anonymous, and/or contact with sponsors who are assigned on admission to the disabled doctors. The cardinal task of these sponsors is to be available, to monitor and keep in touch with the disabled doctor particularly during the 20 months of aftercare after having established a good relationship with him or her during the 4-month treatment program. The Chairman of the Aftercare Committee is chartered to periodically assess the quality of recovery of the impaired physician and to maintain contact with him or her. Peer group monitoring in Caduceus Clubs and sponsorship phone calls and visits is supplemented by the Auxiliary Coordinator visiting in his or her geographic area to maintain contact with the wife or other closely related person. Recently, a refined and more sophisticated data base check of sobriety has been introduced.

Updated Statistical Data as of November 1980

Since the Program was initiated in September of 1975, a total of 168 previously impaired physicians have returned to practice (Table 1). Sixty-seven either refused treatment or fell into the categories of immorality, senility, malignancy, or organic damage which made them ineligible for our Program.

Currently, two tracking systems are being pursued. We are attempting a 5-year follow up on those refusing treatment and a similar study on those who broke contract. The latter category has been easier to document, as three died, 15 repeated treatment, and six are still unaccounted for.

TABLE 1 — Status of Disabled Doctors Identified by MAG's Treatment Program, September 1975-November 1980

Contacted and Assessed	336
Refused or Took Inappropriate Treatment	67
Entered Treatment	269
Returned to Practice	168
Repeated Treatment	15
Currently in Treatment	24
Deceased	4

Of particular interest is the fourth item in this table. At the current "graduate" rate, this Program is returning to practice virtually a full medical school class every 3 years. One hundred physicians, who would have been unable to return to work and lost forever to medicine, are now successfully, soberly, and constructively returned to their communities to practice medicine after participating in the Program.

Reassessing the data on the first 100 physicians successfully returning to practice for 2 years or longer, the perspective for 1980-81 is: (1) they will be treated at an earlier age — 48% under 40; (2) they will not have to undergo previous treatment — 55% primary treatment; and (3) they will not require additional treatment — 93% requiring no further treatment (2 years of follow up).

After evaluating the first 5 years of the Program, it is apparent that we must extend our efforts to impaired professionals as a whole. These would include not only doctors but also dentists, nurses,and pharmacists. The characteristic of the disabled doctor in identification, motivation, treatment, and reentry applies similarly to them, with emphasis on the fact that they too often cannot reach out for help. It is now apparent that alcohol and/or chemical dependency is an occupational hazard for health professionals. It is evident that a 4-month program is superior to the traditional 29 to 30 days treatment program. The model in Georgia involving the transitional living facilities, the work program for mirror image therapy, true peer group therapy, and medical student participation is not only highly effective but also applicable to these other impaired professionals. A regional concept because of staff and facilities has evolved. Beginning plans for a Southern consortium have been implemented, and it is hoped that such a consortium may be established to serve as a model for the rest of the five or six other regions in this country. Thus, current efforts in the Disabled Doctors Program have been directed toward not only inclusion of other impaired professionals but also regionalization.

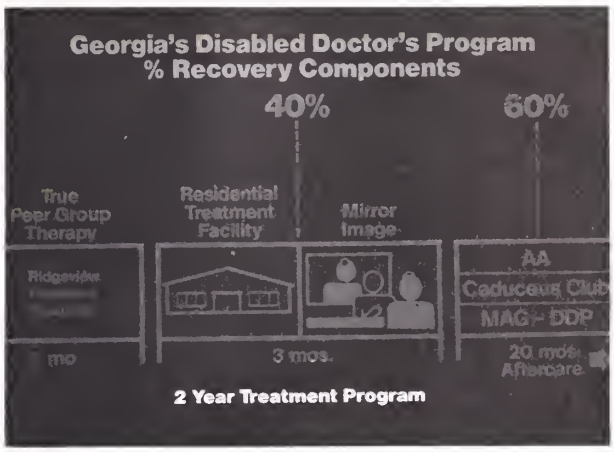


Figure 3

Perhaps the single most important lesson this Program has taught us is that while disabled doctors cannot reach out for help, they will, when motivated with appropriate treatment, demonstrate a high rate of recovery. The value of such recovery to the individual physician, his or her family, and community is incalculable. The data on the state program show this to be truly Georgia's new medical school. Even better results are envisaged as additional experience continues to be gained.

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The public school system in Georgia has no set policy on whether to allow a person stung by an insect to be given adrenalin at the school in case he or she experiences an allergic reaction.

Emergency Treatment of Insect Sting Reactions — Should Adrenalin Be Available in Schools and Camps?

BETTY B. WRAY, M.D., and MARGARET F. GUILL, M.D., *Augusta**

GENERALIZED ALLERGIC REACTIONS caused by stinging insects are estimated to cause at least 40 deaths every year in the United States and probably many more occur that are unrecorded. The frequency of insect sting allergy in the population is estimated to be between .4 and .8 percent and appears to be the same in atopic and non-atopic populations. Males are more commonly afflicted than females, as are individuals under the age of 20 years. Insects more often responsible for allergic reactions include the bee, wasp, hornet, yellow jacket, and in the southern part of the United States, the imported fire ant.

Unfortunately, most individuals have no prior warning of the possibility of stinging insect allergy. In several studies, less than 50% of the patients who died were known to have histories of insect sting problems. In a few patients, moderate to severe local reactions which become progressively worse with successive stings may be the forewarning of an acute systemic reaction. Presently, however, it is impossible to accurately predict the manifestations and severity of anaphylaxis that may occur following another sting.[1]

Venom immunotherapy, which is recommended for any patient with a history of generalized sting reaction and a positive skin test to venom, can provide up to 95% protection for those patients on maintenance dosage.[2] These patients are encouraged to avoid insects, if possible, and to carry medication for self dosing in case of a severe reaction to a sting. Any patient who has had a generalized reaction should have immediate access to and know how to use an insect kit containing injectable adrenalin.

Two forms of self-medication kits are available. One is the AnaKit† which contains adrenalin in a prepared syringe with two 0.3 ml doses of 1 : 1,000 adrenalin. It also contains chewable Chlor-Trimeton tablets as well as a loop-type tourniquet which can be used on an extremity proximal to the site of the sting. The other kit that is available is the Epipen‡ which requires only a push against the arm or leg to administer a dose of .3 ml of aqueous adrenalin. Most physicians prescribing these kits have the patient practice giving an injection in the office. Some physicians also add ephedrine capsules to the kit and suggest that when stung their patients take the antihistamine and the ephedrine, apply the tourniquet and ice, and then go to the nearest physician or emergency room. They are instructed that if they develop any systemic symptoms such as difficulty breathing, generalized urticaria, or feelings of weakness, they should administer the first dose of adrenalin, and repeat a dose in 20 minutes if necessary.

* Dr. Wray is an Associate Professor of Pediatrics, and Dr. Guill is an Assistant Professor of Pediatrics, Section of Allergy-Immunology, Medical College of Georgia, Augusta, GA 30912. Send reprint requests to Dr. Wray. This paper was sponsored by the Allergy and Immunology Society of Georgia.

† Hollister-Steir Labs.

‡ Center Labs.

A review of autopsy findings in 100 deaths from hymenoptera stings revealed that the respiratory tract was the primary site of pathologic change from the epiglottis to the alveoli. Anaphylactic shock was also a common cause of death. The approximate frequency of the different pathologic types found were respiratory 60%, hemorrhagic 12% (disseminated intravascular coagulation, anaphylactoid purpura), anaphylactic 12%, and neurologic 7%. Only 6% of the fatal cases received treatment within the first hour after the sting compared to a large group of severe but nonfatal reactions in whom 87% received medication within the first hour. It is noteworthy that five of 100 patients also had coronary occlusions.[3]

Adrenalin is the most specific drug for the manifestations of anaphylaxis due to insect stings.

Since many patients have no prior knowledge of their sensitivity to insect stings, and severe reactions can occur unexpectedly, many physicians feel that appropriate therapy, including adrenalin, should be available in schools, camps, and perhaps other areas where people are likely to be stung. The public school system in Georgia has no set policy on whether to allow a person stung by an insect to be given adrenalin at the school in case he or she experiences an allergic reaction. Our own experience with school officials has included a principal who welcomed having a kit in the school; he and several of his teachers learned to recognize the signs and symptoms of anaphylaxis and how to administer the injection, even though none of the students were identified as allergic to stings. Another principal would not allow an 8-year-old boy with a history of sting reaction to have the adrenalin at school under any circumstances, and his mother actually had withdrawn him from school.

An informal survey of some 36 physicians who are members of the Allergy and Immunology Society of Georgia revealed that the 20 physicians who responded had seen 28 preschool children with generalized insect sting reactions in the past year, 93 in school-aged children, and 102 in patients over high-school age. While none of these reactions were fatal, many were accompanied by respiratory problems and/or shock. Several physicians felt that adrenalin should be available at schools and that a trained person be there to administer the adrenalin if a reaction should occur. They were also concerned that school officials realize that the medication is only a temporary measure and that the patient should still be transferred to a medical facility as soon as possible. Other physicians argued that fatalities and severe reactions are less common in young children and that the availability of adrenalin may not be necessary. Some also expressed concern about the training given individuals who would administer the adrenalin. They felt that more private physicians and emergency room personnel should be aware of the importance of early diagnosis of severe reactions and the indications for adrenalin as well as indications for follow-up testing and possible venom therapy. Several physicians acknowledged that the setting of camps or swimming pools where insects notoriously gather around garbage cans and soft drinks is an additional appropriate place where personnel should be taught to recognize such reactions and administer the appropriate emergency care, including adrenalin injection.

Since early treatment does appear to be important, and adrenalin is the most specific drug for the manifestations of anaphylaxis, including airway edema, bronchospasm, and shock, the importance of proper use of this drug should be emphasized in medical schools, emergency rooms, and postgraduate courses. Ideally, physicians in communities should be aware of the policies in their schools and offer their services for assisting school personnel in learning the proper use of this medication.

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*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

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Niacin	50 mg
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Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



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Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

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 The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

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See prescribing information on last page of this advertisement.



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Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), follicultitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS
Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS
This product is not for ophthalmic use.
In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY
Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS
F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.
Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.
Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS
Skin rash or hypersensitivity may occur following topical application.
The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION
Apply a thin layer of the drug to affected parts 3-4 times daily.
Note:
1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.
July 1980

SU-TON®

DESCRIPTION
Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE
SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS
Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS
The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS
Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS
Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE
Drug dependence has not been reported with SU-TON.

OVERDOSAGE
Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.
Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION
One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED
Bottles of 473 ml (16 fl oz) NDC 0524-0015-16
Federal law prohibits dispensing without prescription.
February 1980

TWIN-K®

DESCRIPTION
Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE
For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS
Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS
TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.
To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS
Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.
The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.
Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.
In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS
Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.
TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE
The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:
1. Elimination of potassium containing drugs or foods
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION
The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.
Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED
Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION
Federal law prohibits dispensing without prescription.
July 1980

TWIN-K-CI™

DESCRIPTION
Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS
For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS
Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS
TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.
To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS
Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.
The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.
Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.
In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS
Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.
TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE
The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.
Treatment measures include:
1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION
The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.
Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

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In this article, the Georgia State Obstetrical and Gynecologial Society joins the American College of Obstetrics and Gynecology in recommending the continued use of the annual Pap smear and gynecologic exam.

The Pap Smear, How Often? The Gynecologist Perspective

THE ONCOLOGY COMMITTEE, GEORGIA STATE OBSTETRICAL AND GYNECOLOGICAL SOCIETY*

In June, 1976, a report of a Task Force on Cervical Cancer Screening Programs headed by Professor F. J. Walton appeared in the *Journal of the Canadian Medical Association*.[37] This comprehensive report reflected the experience of ten Canadian Provincial cytology screening services. This report and the conclusions reached are still being given "cautious consideration" in Canada.[15] The authors of the report emphasize that cytologic screening has played an important role in cervical cancer control, but at the same time they also advise that the cytology tests should be done at less frequent intervals than 1 year. Specifically, the report states that for women "at risk," i.e., sexually active women, the following pattern of screening is appropriate:

1. An initial smear should be taken on every woman over the age of 18 who has had sexual intercourse.
2. If the initial smear is satisfactory and negative, a second smear should be taken after about 1 year (this is to allow for the possibility of false-negative sampling or interpretation at the initial examination).
3. Providing the initial two smears are satisfactory and negative, subsequent smears should be taken at approximately 3-year intervals until the age of 35 and thereafter at 5-year intervals until the age of 60. If all such smears have shown no significant atypia, the patient can then be dropped from the screening program.

This so-called "Walton report" recognized a group of women who were at increased risk for the development of cervical cancer because of "the early onset of sexual activity, especially with multiple male partners" and recommended that women at continuing high risk should be screened annually.

Cost effectiveness and the most efficient utilization of resources was of major concern in this report.

The American Cancer Society (ACS) in its recent report on "The Cancer Related Health Check-up" echoed the conclusions of the Walton report and recommended that "all asymptomatic women age 20 and over and those under 20 who are sexually active have a Pap test annually for two negative examinations and then at least every 3 years until the age of 65. A pelvic examination should be done as part of a general physical examination every 3 years from age 20 to 40 and annually thereafter. . . . Women who are at a high risk of developing cervical cancer because of early age at first intercourse, multiple sexual partners, or other risk factors may need to be tested more frequently. Women who are relatively inactive sexually may prefer a less frequent interval." In their summary table they recommend that a Pap test be taken "at least every 3 years" and that "high risk women should have more frequent Pap test."[1]

The ACS report has caused considerable concern about its possible adverse effects on the current successful cancer control in this country. An overwhelming number of gynecologists in this country take exception to these "recommendations" and continue to recommend an annual Pap smear.

Since the introduction of the annual Pap smear, dramatic reductions in the incidence of invasive cancer of the cervix have been noted. A fall in the

* This article represents a synopsis of *Periodic Cancer Screening for Women*, ACOG Statement of Policy, June 1980. Address reprint requests to Dr. A. Gatewood Dudley at 401 S. Lee St., Americus, GA 31709.

incidence of invasive cancer of the cervix from 28.4 per 100,000 women age 20 or more to 8.6 per 100,000 in British Columbia was noted between 1955 and 1974.[37] Christopherson reported that the age-adjusted incidence of invasive cancer decreased by 58% in the 20 years following the introduction of cytologic screening.[4] Johannesson in Iceland reported a 50% reduction in cervical cancer mortality among women screened over a period of less than 10 years.[13]

While much progress has been made in the reduction of mortality in this disease, much remains to be done.[2] Only slightly greater than 50% of the women in Georgia have ever been screened for cervical cancer. Furthermore, it has been shown that poor and minority women are less likely to have regular Pap tests.[10, 28, 35] In our opinion, the publicity generated by the ACS report will decrease even further the opportunity for early detection of cancer in this group of women.

The rationale given by the ACS report for the increased intervals between screenings is that the average transit time between the cervical cancer precursor and invasive cancer is 10 years. It is important to recognize that from a distributional curve, transit from carcinoma in-situ (CIS) to invasive cancer occurs in 5% of cases in 3 years or less, and in another 5%, this transit may occur in 17 years or more.

Further disagreement is noted regarding the accuracy of the single Pap smear, as the false-negative rate has been reported to be between 20 and 50%.[5, 9, 11, 12, 17, 22]

Therefore, repeated, frequent screening examinations may be of practical value in offsetting screening or laboratory errors.

Many observers have also noted an increased incidence of adenocarcinoma of the cervix which in some reports now represents 20% of all early cervical cancer.[2, 7] Unlike squamous cell carcinoma of the cervix, adenocarcinoma is not preceded by a well-defined precursor state. Lengthening of the interval between cytologic screenings is likely to result in a failure to detect many adenocarcinomas at an early stage.

Ancillary advantages to women having annual physical, pelvic, and Pap smears should also be noted: Non-genital malignancies may be discovered (in an incidence approximating that of invasive cancer of the cervix), contraceptive advice and adjustments may be offered, as well as screening for hypertensive and metabolic disorders.

In the final analysis, lengthening of the interval between Pap tests is recommended for cost effectiveness. The basic issue is lives versus dollars.[31] In England and Wales, where it is recommended by the Department of Health and Social Security that routine screening begin at age 35 and be repeated every 5 years, the number of deaths from cervical cancer in women under 35 doubled between 1966 and 1976.[38]

It can be determined that increasing the interval between successive cytologic evaluations from 1 to 3 years on a cohort standard will result in a four-fold increase in the number of invasive carcinomas that will be missed within a population being screened.[27]

In summary, the Pap smear is an inexpensive, non-invasive method of screening with no discernible morbidity. Its use serves to reduce the incidence of cervical carcinoma.

The recommendation of the annual Pap smear further serves as the catalyst which brings the patient and her physician together at least once a year. Surely this liaison is not excessive but rather the cornerstone of good, preventive medicine. Therefore, the Georgia State Obstetrical and Gynecological Society joins the American College of Obstetrics and Gynecology in recommending the continued utilziation of the annual Pap smear and gynecologic exam.

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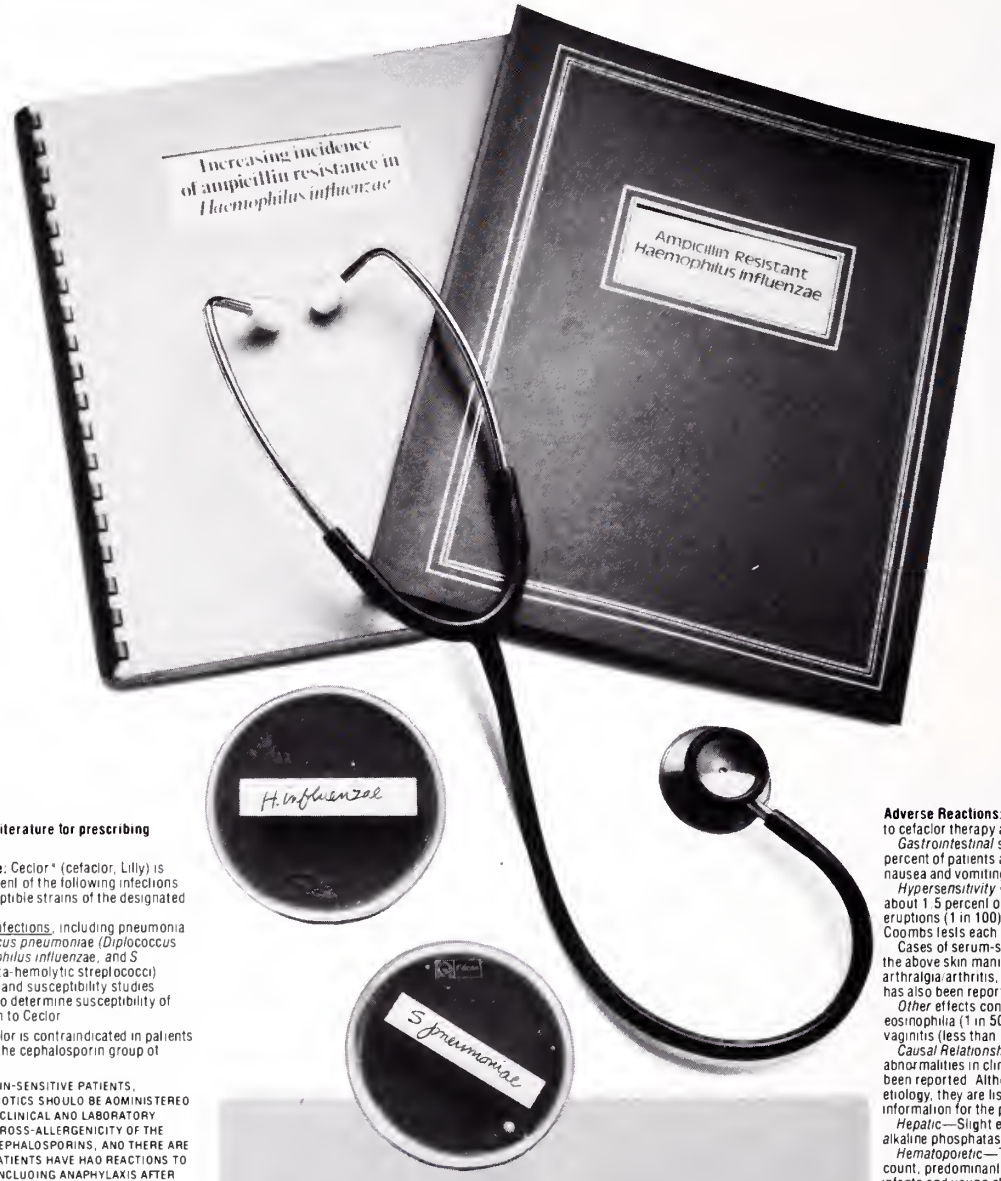
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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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Brief Summary
Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose, or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae*. [8]

Note: Ceclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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In this installment, we see how the Civil War affected the Ticknors and in what ways they contributed to the relief of suffering from the wounds of war.

Francis O. Ticknor, 19th Century Physician-Poet — Part II

EVELYN WARD GAY, ***Decatur****

Georgia-born Francis Orray Ticknor graduated from the University of Pennsylvania College of Medicine in 1842. After serving a 1-year apprenticeship in his parents' home state of Connecticut, he returned to South Georgia to practice medicine near his boyhood home in Columbus. By 1860, his plantation, Torch Hill, had become a showplace of fruits and flowers, and his fame as a farmer-physician-poet had spread across the country.

THE SHORT SPAN of years that covered the decade between 1850 and 1860 was soon only a pleasant memory for the Ticknors. In 1860, when civil war was impending in the nation, Dr. Ticknor was in his late 30s. He was a peace-loving man, one who had lived and practiced brotherhood toward all men for many years. Some of his relatives and many of his friends still lived in the North. His own roots were there. The advanced education which he prized so highly was obtained outside the South.

In spite of many conflicts, however, he remained a true Southerner. His sympathies were with the people he knew and loved in his native Georgia, those he cared for as a physician and a friend. He knew that he could support no other cause than that of the Confederacy. Yet his was a loyalty without bitterness, an attitude which he managed to incorporate into much of the poetry which he composed during the next few years.

Dr. Ticknor's poems were soon attracting the attention of people in other sections of the country. Some of them were appearing in newspapers and periodicals all across the land. Other established poets were seeking his company. They visited him at Torch Hill, went back and wrote about him and his work.

Dr. Ticknor was never commissioned during the Civil War and saw no field service, but his usefulness as a physician and friend to those in the service of their section was well-known. Seldom did he find time for rest or sleep during the agonizing years of the war. His workload increased as the fighting approached Atlanta. The battles between Hood and Sherman had caused every available building in the small cities and towns of Georgia to be used to house the casualties. He was put in charge of wards at several of the places of business in and around Columbus which had been converted into temporary military hospitals. One of those makeshift hospitals was the old Banks Building at Columbus, located on the east side of Broad Street.

Rosalie Ticknor and her two sisters were active supporters of the Southern cause. Along with the other women of the area, they daily visited the Broad Street hospital to minister to the sufferers of the war. One day in late 1863, Rosalie was strongly drawn toward a young boy who had been badly wounded in one leg in the fighting between Murphreesboro and Chickamauga. After her return home to Torch Hill that evening, she was unable to get the boy-soldier out of her mind. She told Dr. Ticknor about the "mere skeleton, so weak and emaciated he seemed more dead than alive," and begged him to bring the

* Mrs. Gay (Brit B., Jr.) is a member of the Auxiliary to the MAG. This article is taken from a book-length manuscript about Dr. Ticknor called "Of Pills and Poetry" that will be published soon. The first part of this article appeared in the July *Journal*. Send reprint requests to Mrs. Gay at 911 Vistavia Circle, Decatur, GA 30033.

boy to Torch Hill. He did so in his own carriage, although the attending physician insisted that it would be worse than useless. The boy was suffering from gangrene and was near death.

But it was Indian Summer in South Georgia, and Torch Hill was then far away from the sounds and smells of the war, a place where the breezes were refreshing and the air pure and balmy. Although many times he was given up for dead, the patient had the best of a physician's personal care and the gentlest of nursing from the women, and he soon began to rally.

When the boy could speak, he told the Ticknor family that his name was Isaac Newton Giffen, that his father had been a blacksmith in the mountains of East Tennessee, and that his mother still lived there. He said that he was only 16 years of age, that he had participated in 18 battles, and had been free from injury until just before his arrival in Columbus.

Little Giffen, as they called him, could neither read nor write, but he entertained the family with stories of his marches while wounded and ill, when he had been forced to lie down in the road to get a drink of water from mud puddles to keep from dying of thirst and dehydration.

Improvement in his condition was slow, but when he was able to sit up he took his first daily lesson in reading and writing from Rosalie Ticknor. He learned quickly. The first letter he wrote was to his mother, the second to his captain. No acknowledgement ever came from his mother, but he did receive an answer from his captain. He was urged to return to his unit as soon as possible.

Little Giffen went to Torch Hill in September of 1863 and left in March of 1864. On the day of his departure to rejoin the Confederate forces, he bade a tearful farewell to the Ticknor family and Torch Hill, promising to write his third letter to the family who had befriended him and brought him back to life.

Torch Hill was a lonely place for the Ticknor family after the boy was gone. They waited each day for a letter from him, but none came. News of the continuing war reached them regularly, but still there was no word from Little Giffen. It was finally assumed that he must have perished in the first engagement after his return to his unit. And in sorrow and remembrance, Dr. Frank Ticknor took time out to write what was to become his most famous piece of poetry.

Dr. Ticknor's poem about the soldier-boy first appeared in print in November of 1867 in *The Land We Love*, a paper published in Charlotte, N.C., but it was soon being published in other newspapers and periodicals across the United States, and translated into numerous foreign languages.



Little Giffen — one of the Civil War's heroes *and* victims who was healed and nurtured by the Ticknors. (Redrawn by James A. Mahaffey, Atlanta.)

Little Giffen

Out of the focal and foremost fire,
Out of the hospital walls as dire,
Smitten of grape-shot and gangrene,
(Eighteenth battle and he sixteen!)
Specter! such as you seldom see,
Little Giffen, of Tennessee.

"Take him and welcome!" the surgeon said.
"Little the doctor can help the dead!"
So we took him and brought him where
The balm was sweet in the summer air;
And we laid him down on a wholesome bed –
Utter Lazarus, heel to head!

And we watched the war with abated breath,
Skeleton boy against skeleton death.
Months of torture, how many such?
Weary weeks of the stick and crutch;
And still a glint of the steel-blue eye
Told of a spirit that wouldn't die.

And didn't. Nay, more! In death's respite
The crippled skeleton learned to write.
"Dear Mother," at first, of course; and then
"Dear Captain," inquiring about the men.
Captain's answer: "Of eighty and five,
Giffen and I are left alive."

Word of Gloom from the war one day;
Johnston pressed at the front, they say.
Little Giffen was up and away;
A tear – his first – as he bade good-by,
Dimmed the glint of his steel-blue eye.
"I'll write, if spared!" There was news of the fight;
But none from Giffen; he did not write.

I sometimes fancy that were I king
Of the princely knights of the Golden Ring,
With the song of the minstrel in mine ear,
And the tender legend that trembles here,
I'd give the best on my bended knee,
The whitest soul of my chivalry,
For "Little Giffen" of Tennessee.



His poem "Ora Pace" told of his hope for peace between the two sections of his country. (Redrawn by James A. Mahaffey, Atlanta.)

Ora Pace

Ora Pace! Pray for peace!
Till these times of tumult cease!
Ye with heavy hearts and eyes,
Watchers as the war-clouds rise,
Though the shadows still increase,
Gentle spirits! Pray for peace!

Ora Pace! Ye that lift
The nation's weapons, keen and swift
Ere ye loose the thunder, pray
That the wrath may pass away!
Ere the lightenings ye release,
Patriot statesmen, pray for peace!

Ora Pace! Ye that stand
The shield and summer of the land;
Though the blood is hot and high,
Bounding for the battle-cry,
Remember, boys, whose kiss ye bear,
And pray for peace, ye sons of Prayer!

Ora Pace! Who shall tread
Our lilies when that prayer is said?
Dark may be the sullen tide
Of the stranger's lust and pride,
But our God shall still increase
The strength that strikes and prays for peace!

After the war was over, Dr. Ticknor continued to practice medicine around Columbus, and to compose other well-known poems, but he had become ill from extreme exposure and overwork during the war years, and he never fully regained his strength.

One of his sons, Douglas Ticknor, who later became a physician, used to tell how in accompanying his father on his last rounds, Dr. Ticknor, growing sicker by the day, his face covered with a thick, white beard, would hand the reins to the boy so that he could write lines of poetry on the margins of his newspaper. One poem, "The Gray Going Home," written to the horse who had served him throughout the war, was jotted down on the edges of a copy of the *New York Times* while riding at twilight from Columbus to Torch Hill with the horse much bespattered with red mud.

The Gray Going Home

Up the hill, mine honored Gray,
We are going home – "to stay!"
Around the hill, below the heights,
Cling the glooms and gleam the lights.
Glamor of the evil eyes!
Spume of hate that never dies!

Let the cauldron boil below!
Wish the world a fairer foe!
Balsam to our battle-scars,
Climbing nearer to the stars.
Homeward with the rapture that
Beached the ark on Ararat.

All the ways of war and weather
We have worn the harness leather!
Days with never cymbal beat,
Save the music of thy feet.
Nights with never star or guide,
Save the glimmer of thy hide;

Stained with all the tints of toil,
And variations of the soil.
Deeper tinct with every stain,
The tireless wine-press wrings from pain.
Not the frosted hills display
Richer dapple, oh, my Gray!

Not the vales at vintage hold
Riper deeps of gloom and gold.
Up the hill, oh, grace and speed
And the power unplummeted of need!
These have cheered the night agone!
These are musical at dawn.

Ringing to the bright'ning dome,
Climbing upwards, onwards, home!
Far above the cauldron's spume,
With starry cross and stainless plume.
We have shared the corn and heather,
We are going home together!

Reconstruction was a time of great difficulty for the South. Poverty, along with the bitterness of defeat, swept the land. Much of the area Dr. Ticknor had helped his neighbors to recover and turn into productive farmland lay devastated by the invading troops. Farmhouses had been burned, animals slaughtered, treasured possessions stolen. A decade of improvements had gone to waste. All that was left was Torch Hill, scarred and showing many signs of the conflict, but still standing proudly upon its prominence overlooking the Chattahoochee River Valley.

Dr. Ticknor's courage, too, had survived the war. He tried to cheer those depressed and lost souls about him with what little strength was left to him, spreading his good deeds among them, caring for their ills without pay, sharing with them the meager posses-

sions he had been able to salvage for himself — the fruits from his orchards, the vegetables and flowers from his gardens, the bright and hopeful words from his pen.

Dr. Ticknor died of pneumonia at Torch Hill on Dec. 18, 1874, and was buried in Lynnwood Cemetery in Columbus. He was 52 years of age. Rosalie lived on for many years after his death. The five Ticknor sons grew to manhood and became distinct assets in the area their father had loved. Torch Hill, however, was soon deserted as the family members left the land and moved away to establish homes of their own.

The first collection of Dr. Ticknor's poems appeared in 1879. The publisher was J. B. Lippincott of Philadelphia. Others were to follow over the next several years and before long, school children in many classrooms were reading and reciting his masterpiece, "Little Giffen," as well as some of his other rhymes.

By the time the twentieth century was underway, seldom was there an anthology of poetry published anywhere that did not include a selection and a discussion of the poems of Dr. Francis Orray Ticknor.

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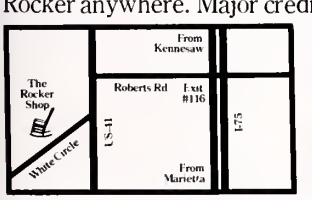
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Warnings Cyclacillin should only be prescribed for the indications listed herein.

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Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

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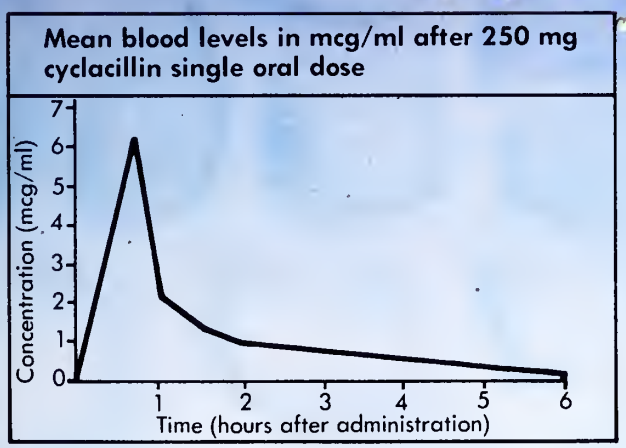
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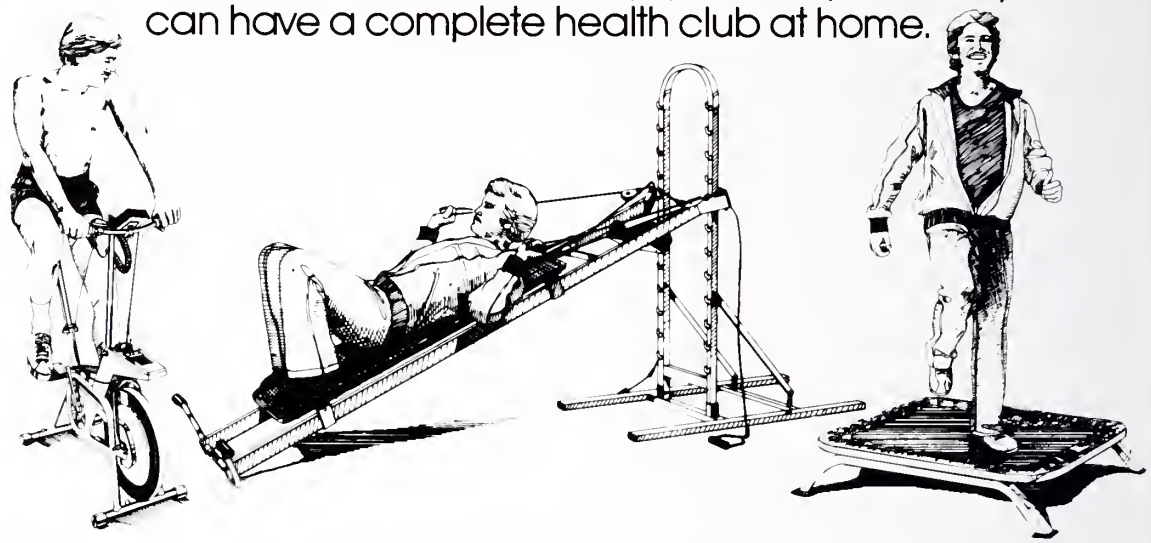
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New Hope in the 1980s for the Cyanotic Infant

WESLEY COVITZ, M.D., *Augusta**

RECENT ADVANCES in diagnostic cardiac imaging, medical therapy, and cardiac surgery hold great promise for the management of the cyanotic infant in the 1980s. In the last decade, our surgical colleagues demonstrated unequivocally their ability to palliate or repair an ever increasing spectrum of congenital heart defects. Failure to achieve survival rates equivalent to projected operative mortality was primarily due to delays in recognition of the cyanotic newborn. Too often the infant reached the cardiac center severely acidotic and beyond saving or never reached the center at all.

Dramatic surgical successes have, like nothing else could, captured the attention of physicians across the country. An increased awareness that the cyanotic newborn has a fighting chance at the cardiac center has resulted in an increased number of referrals. With this vote of confidence came the challenge to deal with sicker infants and those with heart defects of greater complexity. Three recent developments are the key to reaching these goals: echocardiography, prostaglandins, and deep hypothermia.

Identification of the infant with cardiorespiratory distress due to cyanotic congenital heart disease in the first days of life is complicated by the frequency of respiratory and metabolic illnesses presenting with a similar clinical appearance. An arterial blood gas obtained in an atmosphere of 100% oxygen with a $pO_2 \geq 1.5$ torr (150 mm Hg) adequately excludes the presence of cyanotic congenital heart disease. If possible, the oxygen test should be performed with continuous positive airway pressure (10 cm) by mask. This technique will result in improved oxygenation in infants with ventilation-perfusion mismatches due to atelectasis. Perfused lung that is not ventilated results in cyanosis which is unresponsive to oxygen administration. This simple device further refines the selection of infants who should be referred to the cardiac center.

M-mode and two dimensional echocardiography have had a major impact on the differentiation of infants with surgically correctible congenital heart defects from those with right-to-left shunts due to persistent fetal pathways. These infants are often indistinguishable by other means. Cardiac catheterization may be avoided in critically ill infants without structural disease and better planned in those with heart disease. Facilities where these imaging techniques are available are no longer confined to the cardiac center. In the 80s, physicians across Georgia will develop the experience and skills needed to identify infants with remedial congenital heart defects utilizing echocardiography.

* Dr. Covitz is Associate Professor of Pediatrics, Medical College of Georgia, Augusta, GA 30912. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Miltiadis Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

For several years, clinical investigators have been using prostaglandin E_1 intravenous infusions to treat cyanotic infants with congenital heart disease. The drug has been an overwhelming success and is likely to be released for general use in this decade. Most infants with cyanotic heart disease do not manifest their cyanosis initially. When the ductus arteriosus begins to close, they become cyanotic and distressed. Prostaglandin E_1 acts directly on the muscular lining of the ductus to maintain patency. Infants with severe acidosis, hypoxia, and even shock can be stabilized in just a few hours with this drug. Cardiac catheterization may be performed with great safety and more complete information can be obtained. The cardiac surgeon is presented with a stable infant who may be operated on under controlled conditions and who thus has a dramatically improved prognosis.

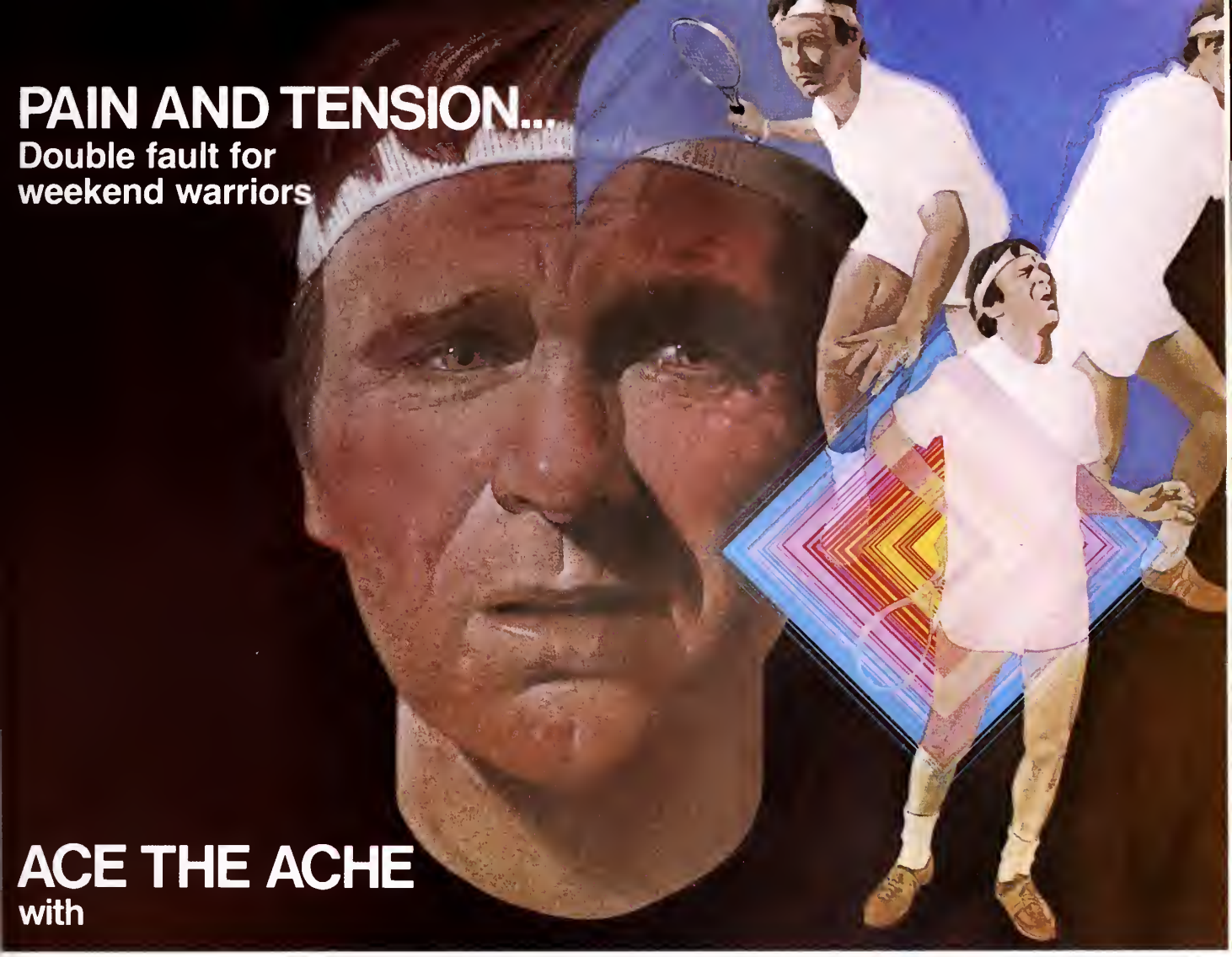
One of the greatest advances in the treatment of the cyanotic infant has been in the ability to perform corrective surgery during hypothermic cardiac arrest.

The surgery itself has changed markedly. Palliations are still commonly performed, especially the Blalock-Taussig shunt, which has been modified by placing a prosthetic tube between the subclavian and pulmonary arteries. The greatest advance, however, has been in the ability to perform corrective surgery during hypothermic cardiac arrest. Infants are packed in ice and externally cooled. The chest is opened, and the venae cavae and ascending aorta are cannulated so the infant can be placed on bypass. The blood is cooled and oxygenated by the heart-lung machine. The heart is bathed with iced saline until it arrests. The aorta is cross-clamped, and a cold cardioplegia solution containing potassium, insulin, and dextrose is infused into the aortic root and coronaries to protect the myocardium. The heart is opened and the surgery performed in a motionless, bloodless field. After surgery is completed, the aortic clamp is removed, the heart is defibrillated, and warming is initiated while on cardiopulmonary bypass. Deep hypothermia and cardioplegia maintain the viability of the myocardium during ischemic arrest. The surgeon can repair complex lesions of the myocardium using these techniques with a high success rate.

Early recognition of the cyanotic newborn depends upon the alertness of the initial attending physician. The potential for successful correction and a normal life is so great that immediate referral of the infant with cyanotic congenital heart disease to the cardiac center is essential. The echocardiogram helps to select infants whose cyanoses are of cardiac origin for surgery, and those with pulmonary or metabolic disorders and persistence of the fetal circulation for medical therapy. Prostaglandin E_1 maintains the patency of the ductus arteriosus, improving oxygenation and acidosis before surgery. The technique of deep hypothermia makes it possible to successfully perform corrective operations on complex congenital heart defects in infancy. Echocardiography, prostaglandins, and deep hypothermia represent a formidable armamentarium to deal with the cyanotic infant in the 80s.

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***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants e g caffeine Metrazol or amphetamine, may be cautiously administered If severe hypotension develops pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS. A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses, peripheral edema and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case) thrombocytopenic purpura agranulocytosis and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and light headedness, with uneventful recovery However, on the basis of pharmacological data it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate 75 mg ethoheptazine citrate and 250 mg aspirin

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WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**)
Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions; a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity: jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Reconciling the Antitrust Laws and the Health Care Laws: A Step Backward?

ROBERT N. BERG, *Atlanta**

THE FEBRUARY, 1980, "Legal Page"[1] dealt with the question of how to reconcile the antitrust laws, which are primarily aimed at (and demand) free and unfettered competition and which prohibit virtually all forms of concerted, anticompetitive activity, with the health care laws, which focus primarily on avoiding duplicity of health care services and reducing health care costs. In that article, it was noted that the attempts to reconcile the "free competition" model of the antitrust laws and the "cost containment" model of the health care laws had produced divergent results. On the one hand, the two courts which had dealt with the question of whether or not activities undertaken as a result of requirements imposed by the federal health care statutes could constitute violations of the antitrust laws both determined that such activities were exempt from antitrust liability.[2] On the other hand, both federal and state enforcement agencies (including the Antitrust Division of the Department of Justice, the Federal Trade Commission, and various State Attorneys General), had refused to accept the proposition that the federal health care statutes totally removed certain activities from liability under the antitrust laws.

The article concluded on an upbeat note: that the sizeable obstacle to the achievement of the purposes and goals of the federal health care statutes created as a result of a literal, rigid reading of the antitrust laws, had, at least as of that time, been significantly reduced because of the willingness of courts to subordinate the antitrust laws in order to permit the "concerted activity" required under the health care laws. However, as a result of a recent Supreme Court decision, it appears that the "obstacle" created by the antitrust laws may not only have increased in size, but in fact may have become insurmountable.

Lower Court Decisions

The facts in the *National Gerimedical* case were described in the February, 1980, "Legal Page." Briefly, a private geriatric hospital brought an antitrust action against Blue Cross and certain others, alleging that Blue Cross had conspired to boycott the plaintiff hospital and to coerce Blue Cross subscribers to refuse to deal with that hospital by adopting a higher reimbursement rate for hospitals obtaining certificates of need (CONs) than for hospitals not obtaining CONs. Under the Blue Cross plan, participating hospitals received direct reimbursement of the full costs of covered services rendered to individual Blue Cross subscribers. However, when subscribers received care in hospitals that were not participating members, Blue Cross only paid 80% of the costs, and these payments were made to the subscriber, rather than directly to the hospital. As to the plaintiff hospital, Blue

*Prepared at the request of the Medical Association of Georgia. Mr. Berg is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

Cross refused to enter into a participating agreement on the basis of its official policy barring participation by any new hospital that first did not obtain a CON from the local health system agency (HSA).

The trial court first hearing the case granted summary judgment for Blue Cross on the grounds that the National Health Planning and Resources Development Act of 1974 (the Act) had by implication repealed the antitrust laws as applied to Blue Cross's conduct. As viewed by the Court, if private parties seeking to effectuate the planning objectives of an HSA could be subjected to antitrust liability, accomplishment of the purposes and goals of the Act would be frustrated. Since the Court found a "clear repugnancy" between the Act and the antitrust laws, it determined that Congress had intended that action taken pursuant to the Act and clearly within the scope of the Act, such as the action taken by Blue Cross, was exempt from the application of antitrust laws.

On appeal, the U.S. Court of Appeals for the Eighth Circuit affirmed,[3] essentially adopting the reasoning of the lower court. According to the Court of Appeals, a finding that the Act implicitly repealed applicable portions of the antitrust laws could only be made if: (i) a clear repugnancy between the antitrust laws and the conduct at issue existed; and (ii) the intent of Congress was that implied repeal of the antitrust laws should result.[4] Applying this standard, the Court of Appeals expressly agreed with the lower court's finding of a clear repugnancy between the Act and the antitrust laws, as the Act and regulatory scheme thereunder clearly called for the action which served as the basis for the plaintiff hospital's antitrust claim. Moreover, after a thorough review of the legislative history of the Act, the Court of Appeals also agreed with the lower court that Congress, in passing the Act, intended that activities undertaken to aid its purposes and goals should not be subjected to scrutiny under the antitrust laws. As summarized by the lower court:

> Although Public Law 93-641 [the Act] contains no specific exemption from the antitrust laws, an analysis of the activities required of HSAs and providers indicates that Congress sanctioned actions which might otherwise be in violation of our antitrust laws. The intent of Congress was that HSAs and providers who voluntarily work with them in carrying out the HSA's statutory mandate should not be subject to the antitrust laws. *If they were, Public Law 93-641 simply could not be implemented.*[5]

The Supreme Court Decision

Contrary to the lower courts' determination that implementation of the purposes and goals of the Act demanded subordination of the antitrust laws, the Supreme Court found that the Act and the antitrust laws could co-exist, holding that the Act "is not so incompatible with antitrust concerns as to create a 'pervasive' repeal of the antitrust laws as applied to every action taken in response to the health-care planning process."[6] Initially, the Court gave a detailed description of the "complex scheme of regulatory and planning agencies" established by the Act, commencing with the local HSA and continuing through the State Health Planning and Development Agencies, the Statewide Health Coordinating Council, the Department of Health and Human Services, and the National Council on Health Planning and Development. The purpose of this regulatory scheme, as viewed by the Court, was two-fold: (i) to rectify the Congressional concern that market place forces in the health care industry had failed to produce efficient investment in facilities, and (ii) to minimize the cost of health care.[7]

The Court then compared the Act's regulatory scheme and purpose with the background and purposes of the antitrust laws, which, in the eyes of the Court, represented a "fundamental national economic policy."[8] It also acknowledged that, because of this importance, "implied antitrust immunity is not favored, and can be justified only by a convincing showing of clear repugnancy between the antitrust laws and the regulatory system."[9] The Court then found that such a "clear repugnancy" between the Act and the antitrust laws did not exist.

Of primary importance to the Court was the fact that the challenged Blue Cross

activities were neither compelled nor approved by any governmental, regulatory body; rather, these activities were "a spontaneous response to the finding of an advisory planning body, the local HSA, that there was a surplus of acute-care hospital beds in the Kansas City area."[10] Moreover, the Court found that, even if the local HSA had requested that Blue Cross implement a policy of providing less reimbursement to hospitals which had failed to obtain CONs, such a request would have been nothing more "than the advice of a private planning body — albeit a planning body created and funded by the Federal Government."[11] In other words, since nothing in the Act *required* that Blue Cross take the action which served as the basis for the plaintiff hospital's claim, the Court was unwilling to sanctify Blue Cross's action by finding that it was immune from liability under the antitrust laws. Accordingly, the Court found that the passage of the Act by Congress did not create antitrust immunity for acts of "private enforcement" such as those undertaken by Blue Cross.

The Court also determined that, the lower courts' finding to the contrary notwithstanding, the Act did not immunize *all* private conduct undertaken in response to the health planning process (*i.e.*, that the statutory scheme set out in the Act, in effect, completely ousted the antitrust laws from application to activities undertaken to further the purposes of that Act). Rather, it chose to follow the "guiding principle" that, where possible, "the proper approach . . . is an analysis which reconciles the operation of both statutory schemes with one another rather than holding one completely ousted";[12] and, utilizing this approach, the Court refused to find a blanket antitrust exemption for all activities taken under the auspices of aiding the purposes and goals of the Act.[13]

Conclusion

The importance of the Supreme Court's decision in the *National Gerimedical* case lies not so much in the specific holding but in its probable future effect on the health care planning process. The Court itself noted that, factually and legally, the *National Gerimedical* case would "differ substantially"[14] from future cases where the conduct at issue was cooperation among providers to satisfy an HSA's mandate, rather than conduct amounting to an insurer's refusal to deal with a provider that failed to heed the advice of an HSA.

In the long run, however, it appears that the antitrust laws and the health care laws may once again be on a collision course. By removing the availability of the defense that the Act implicitly repealed, *in toto,* application of the antitrust laws to activities undertaken voluntarily by defendants such as Blue Cross, it appears that the Court may have opened the door to lengthy, expensive antitrust lawsuits based upon these activities. The Court may also have placed a sizeable, if not insurmountable, obstacle in the path of achieving the purposes and goals of the Act, as well as other health care laws.

It may well be that, in the subsequent course of litigating antitrust actions, the courts will determine that activities such as those undertaken by Blue Cross in the *National Gerimedical* case do not constitute antitrust violations. Nevertheless, at least for the present, such determinations will be made on a case-by-case basis, presumably after full-blown antitrust trials. As a result, physicians, hospitals, third-party insurers and others may be hesitant to comply with HSA requirements involving concerted activities, and they will certainly be hesitant to engage in voluntary concerted activities which might benefit the purposes and goals of the Act.

Notes

1. Berg RN. Reconciling the antitrust laws and the health care laws. J Med Assn GA 1980;69:127.
2. *Huron Valley Hospital, Inc. v. City of Pontiac,* 1979 Trade Cas. ¶62,520 (E.D. Mich. 1979); *National Gerimedical Hospital and Gerontology Center v. Blue Cross of Kansas City,* 479 F.Supp. 1012 (W.D. Mo. 1979).
3. 628 F.2d 1050 (8th Cir. 1980).
4. See, *e.g., Essential Communications Systems, Inc. v. AT&T,* 446 F.Supp. 1090, 1094-95 (D.N.J. 1978).
5. 479 F.Supp. at 1023 (citation omitted; emphasis supplied).
6. 49 U.S.L.W. 4672, 4676 (June 15, 1981). 7. *Id.,* at 4674-75.
8. See, *e.g., Carnation Co. v. Pacific Westbound Conference,* 383 U.S. 213, 218 (1966); *Lafayette v. Louisiana Power & Light Co.,* 435 U.S. 389, 398-99 (1978). 9. 49 U.S.L.W. at 4675. 10. *Ibid.* 11. *Id.,* at 4676.
12. *Ibid.* See also, *Silver v. New York Stock Exchange,* 373 U.S. 341, 357 (1963).
13. The Supreme Court's decision did not reach the merits of the plaintiff hospital's specific antitrust claims. Rather, the Court's holding simply indicated that such claims must be litigated, rather than rejected on the grounds that the Act implicitly repealed application of the antitrust laws. 14. 49 U.S.L.W., 4676 n.18.

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Support Groups for Cancer Patients in Georgia

ROSE F. McGEE, R.N., Ph.D., and JAMES W. KELLER, M.D., *Atlanta**

THE AMERICAN CANCER SOCIETY, Georgia Division, Inc., has had a committee studying the need for support groups for cancer patients in Georgia for the past 4 years. This committee includes representatives from medicine, nursing, the chaplaincy, social work, mental health, and consumers. The group has assessed ongoing programs in Georgia. The CITE (Cancer Isn't The End) group, which primarily serves DeKalb General Hospital patients, has been in operation for 4 years. CITE has a combined group problem-solving and educational format and is led by a nurse who specializes in cancer care. Similarly, for years, physicians at Egleston Hospital have conducted group sessions for the parents of children with cancer. In north Atlanta, a psychiatric social worker leads short-term seminars for patients and families to assist in coping with cancer. Other states were surveyed and provide similar programs.

The idea of support groups has a strong theoretical base. Social psychologists have demonstrated affiliative needs in higher order species, such as chimps. In man, affiliative needs are documented most clearly in feral children. Children reared in social isolation failed to thrive physically and were incapable of adapting socially later in life (Davis 1940). Schacter (1959) demonstrated that affiliative needs are intensified with fear of the unknown.

Research indicates that cancer generates fear and uncertainty for patients, families, friends, and professionals. Experientially, professionals have observed informal groupings among cancer patients and/or "significant others." Such groups can be a significant source of support or can perpetuate unfounded myths and misinformation. Based on the assumption that cancer is a crisis which enhances affiliative needs and the observation that informal groups occur, the Georgia Division has committed itself to the development of support groups in Georgia. Support groups are supervised by professionals knowledgeable in oncology and in group dynamics, as opposed to self-help groups conducted by lay leaders.

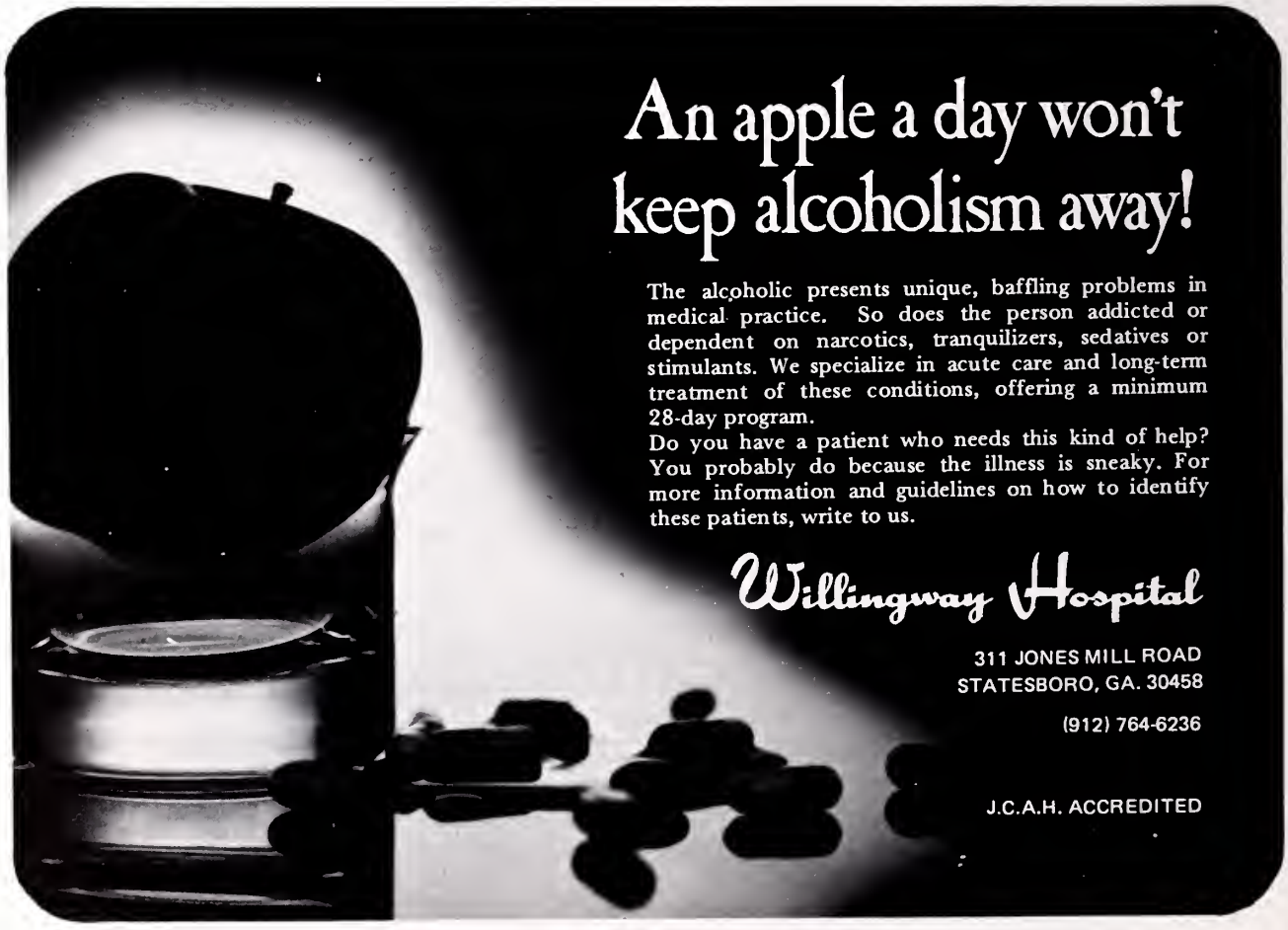
The Division decided to endorse only groups supervised by trained professional leaders, thus necessitating a coordinated training program. The Board of Directors approved a 2-year project which supports a full-time coordinator of Support Groups. DeKalb and Whitfield Counties provided the resources for funding the project; therefore, efforts to assess the needs, establish, and evaluate support groups for selected target groups are concentrated in these two counties. However, consultative services and training programs are available for all areas in the state.

* Prepared at the request of the Georgia Division, American Cancer Society. Others wishing to contribute papers to this page are invited to send them to David B. Roberts, M.D., 2400 13th St., Columbus, GA 31906. Send reprint requests to Mrs. Shirley Preston, Georgia Division, American Cancer Society, 1422 W. Peachtree St. NE, Atlanta, GA 30309.

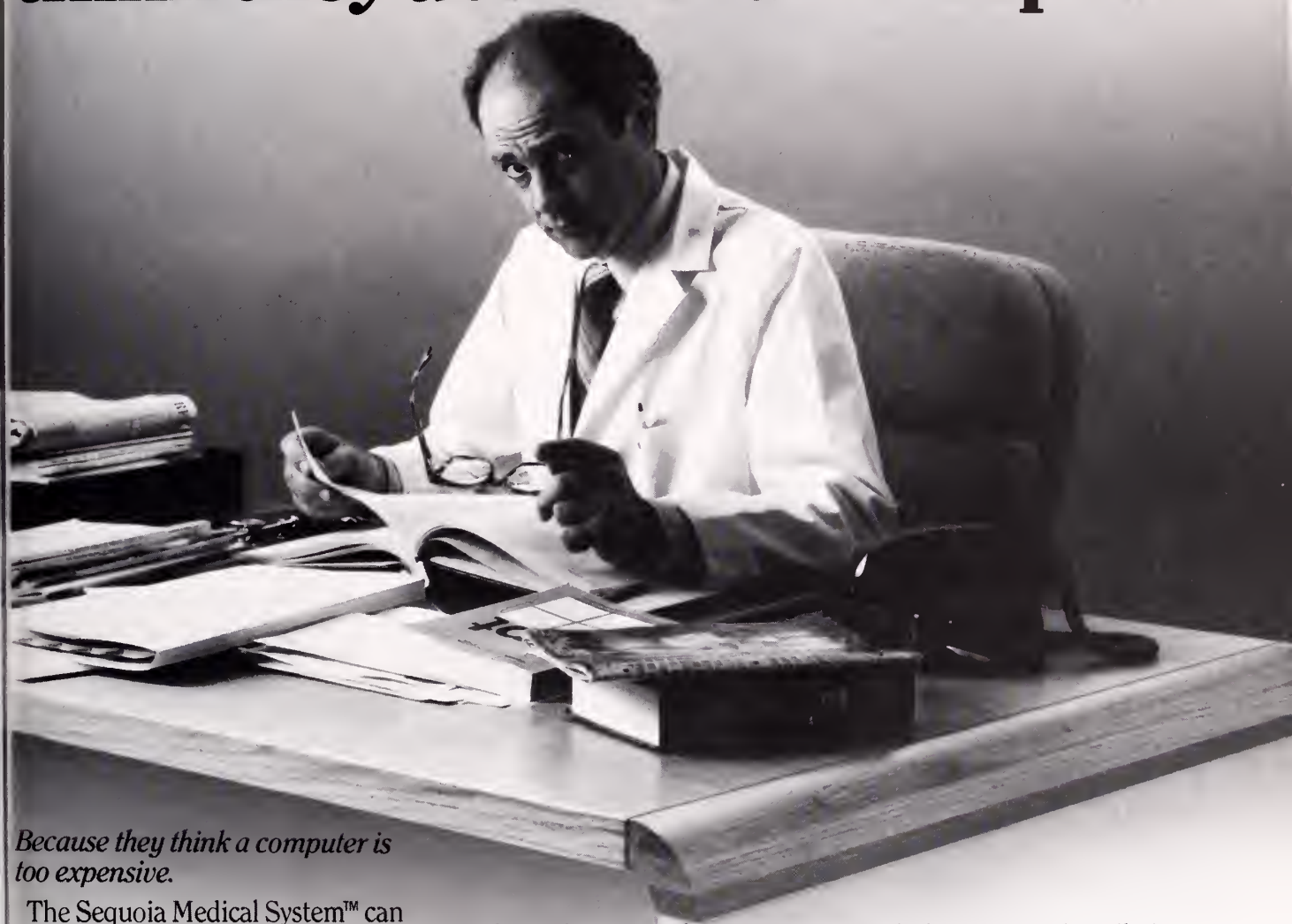
Support groups are not the answer for all cancer patients. The task of health professionals in the state is to recognize target groups or individuals who may benefit from such groups and to communicate these needs to the Cancer Society. One target group that has been identified is breast cancer patients receiving adjuvant chemotherapy. The morbidity of this therapy is great, and the dropout is high. It has been suggested that the influence of group support may help to keep these patients in therapy.

The success of the Support Group program in augmenting ongoing therapy for individuals coping with cancer is dependent upon professional support and involvement. Referrals of individuals who need such support can be made to Jackie Cohen, Support-Group Coordinator, at the Georgia Division (404-892-0026). Program suggestions and offers to volunteer to lead groups should be directed to the Coordinator.

For professionals who focus on educational rather than emotional needs, the Division has a training film and tapes entitled, "I Can Cope." This program is designed to lessen patient feelings of helplessness by fostering knowledge about cancer and its management. The format is eight weekly sessions. Training materials and sessions for leaders are available through the Division Office (404-892-0026).



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president's letter



MAG's Impact on Malpractice Litigation

I HAD OCCASION recently in Chicago, at the AMA Meeting, to meet with other concerned state medical association officers and discuss some of the current problems of medical practice. Prominently emphasized were developments in the area of malpractice litigation. It looks as though in New York it will soon cost $50,000 for a physician to purchase liability insurance. This will undoubtedly give new physicians just starting to practice some second thoughts about where to practice and may hasten the retirement of older physicians.

New York physicians may also start heading for Georgia. I confess that I told them how fortunate we are here, thanks to our Disabled Doctors Program, our generally favorable tort laws, our risk management seminars, and our soon-to-operate MAG Mutual Insurance Company. All these things impact positively on the malpractice litigation situation in our state and your Medical Association of Georgia has been largely responsible. Through its officers, Board of Directors, and hard-working committees, MAG has been very effective in helping provide an enviable climate in which to practice medicine. You can take pride in MAG, it does a good bit more than print a pretty membership card.

L. Newton Turk III M.D.

L. Newton Turk, III, M.D.
President, M.A.G.

NEW MEMBERS

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Ruf, Lawrence E., Ga. Med. Soc.—
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Self, Thomas A., Gordon—ACT—FP
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1135 Hudson Bridge Rd., Stockbridge 30281

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Srivastava, Ramesh, K., C. W. Long—ACT—PS
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Suarez, Alfredo E., Altamaha—ACT—GP
205 North Boulevard, Baxley 31513

Thepsongwajja, Pongthep, St. John's Parish—
ACT—R
P.O. Box 136, Hinesville 31313

Thomas, Charles B., C. W. Long—ACT—GS
1010 Prince Ave., Athens 30606

Thomas, Joyce, C. W. Long—ACT—PTH
Athens General Hospital, Prince Ave., Athens 30613

Wildstein, Albert, MAA—ACT—N-2—GS
849 Peachtree St., NE, Atlanta 30308

PERSONALS

First District

General surgeon, **George C. Haberman, M.D.,** of Savannah, will head the newly-established Group Industrial Medicine, P. C.

Former head of the Georgia Medical Society and current medical director of the Union Camp Corporation in Savannah, **Dearing Nash, M.D.,** addressed the Savannah Rotary Club on how consumers can help curb the rising costs of health care.

Second District

Paul C. White, Jr., M.D., District Health Director for Southwest Georgia, was elected by the Tulane University School of Public Health and Tropical Medicine to membership in the Delta Omega Society, a national honorary public health society. Dr. White is a Fellow of the American College of Preventive Medicine.

Third District

Sylvester general surgeon, **Martin S. Fodiman, M.D.,** opened an office in Richland.

Fifth District

John T. Galambos, M.D., of Sandy Springs, and professor of gastroenterology at Emory University School

of Medicine, has received an Appreciation Award from the Southern Medical Association for his work as editor of the Dial Access Gastroenterology Program, a toll-free CME service.

We would like to correct an error regarding **Dr. William Knapp, M.D.,** of Atlanta, published in this section of the July, 1981, *Journal*. Dr. Knapp has *not* moved his practice to Dahlonega as reported. He continues to practice in Atlanta and work in Dahlonega every Wednesday. We apologize for this error.

Atlanta gastroenterologist, **David Taylor, M.D.,** has co-authored a book entitled *Gut Reactions: How to Handle Stress and Your Stomach*.

Richard W. Blumberg, M.D., and **Heinz Stephen Weens, M.D.,** both from Emory University School of Medicine, have retired. Dr. Blumberg was professor and Chairman of the Department of Pediatrics for the past 22 years; Dr. Weens was Chairman of the Radiology Department since 1949.

Sixth District

John H. Poehlman, M.D., of Dalton, was recently elected to Fellowship in the American College of Cardiology.

Eighth District

Pediatrician and MAG Nutrition Committee member, **Alfred L. Davis, Jr., M.D.,** has moved his practice from Blackshear to Waycross.

Ninth District

Gainesville orthopedic surgeon, **John L. Hemmer, Jr., M.D.,** will relocate his practice to the Sherwood Professional Park this Fall.

Tenth District

James L. Clements, M.D., a radiology instructor at Emory University School of Medicine, has joined the Walton County Hospital staff in Monroe.

DEATHS

James Watts Lipscomb

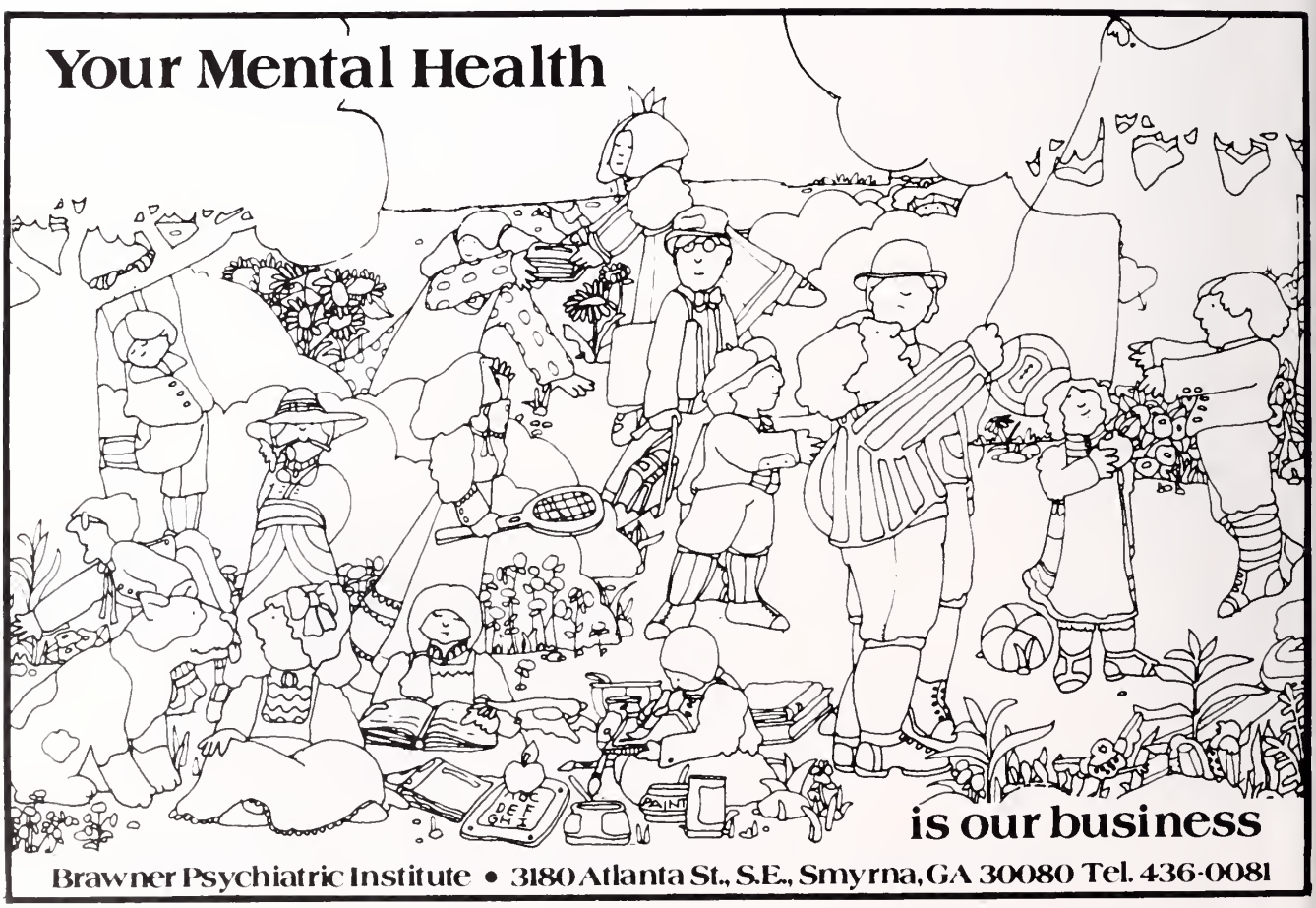
Morrow internist, James Watts Lipscomb, M.D., died June 1, 1981.

Born on Oct. 1, 1926, Dr. Lipscomb was a native of West Virginia. He attended Marshall College in Huntington, West Virginia, and the University of Virginia Medical School. He was a member of the Medical Association of Georgia and the Composite State Board of Medical Examiners.

Survivors include his wife, three daughters, one son, three sisters, and several grandchildren, nieces, and nephews.

George S. Whatley

George S. Whatley, M.D., an orthopedic surgeon in Columbus, died of a heart attack at age 55. A member of the Medical Association of Georgia, he was active in medical affairs in Columbus. Survivors include his wife.



Physician's Recognition Award Recipients

LISTED BELOW *are those physicians in Georgia who have earned the AMA's Physician's Recognition Award from February through May, 1981.*

The award was established in 1969 "to recognize, encourage and support physicians who participate regularly in continuing medical education and to emphasize the importance of developing more meaningful continuing medical education opportunities for physicians." A minimum of 150 credit hours of CME must be earned over a three-year period to qualify for the award. The hours may include such activities as conferences, residencies, teaching, writing, private reading, listening to cassettes, home study courses, consultation, and peer review; at least 60 of the hours, however, must be from formal CME programs sponsored or co-sponsored by organizations accredited for these activities.

We congratulate the following physicians who have distinguished themselves and their profession by their commitment to continuing education:

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Dogan Aktunc, Martinez
Kenneth Braulio Alonso, Atlanta
Manuel Lazaro Alvarez, Savannah
Rafael A. Alvarez, Milledgeville
Ramon Vicente Alvarez, St. Marys
William La Fayette Amos, Columbus
Gail Victor Anderson, Atlanta
Ivan Arnold Backerman, East Point
Merton Monroe Beckwith, Augusta
Arnold Joel Berry, Atlanta
William Henry Biggers, Atlanta
Clyde Edward Black, East Point
Daniel Sender Blumenthal, Atlanta
Harold Joseph Brody, Atlanta
Nyda Williams Brown, Atlanta
John Knox Burns, Gainesville
Charles Wesley Butler, Atlanta
William H. Cabaniss, Athens
Jon Channing Calvert, Augusta
Yung Sheng Cheng, Savannah
Joseph Citron, Atlanta
David Lawrence Cooper, Riverdale
Jerry Lee Cooper, Decatur
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W. O. Cornwell, Fort Oglethorpe
George Krueger Covert, Carrollton
Frederick Bruce Cowen, Atlanta
Bernard F. Davies, Forest Park
Harry Eugene Dawson, Rome
Arthur Elias Diamond, Marietta
Allan Jay Dinnerstein, East Point
Albert Vernon Dixon, Jr., Albany
Richard E. DuBois, Atlanta
Robert L. Egan, Atlanta
Kuo-Chao Fan, Douglasville
Brendan Thomas Finucane, Atlanta
Robert Arthur Gadlage, Decatur
John White Garland, Gainesville
Jane Elizabeth Gates, Lumpkin
Arthur Gelbart, Augusta
Gordon T. Goldstein, East Point
Francisco E. Gonzalez, Canton
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Martin Herbert Greenberg, Savannah
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Willis Pope Jordan, Rome
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Hyun Hahk Kim, Atlanta
John D. King, Atlanta
Ta-Jung Lin, Macon
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Ernesto Gonzales Lopez, Waycross
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Karl Stanley Mihalovits, Smyrna
Park Robert Mitchell, Marietta
Albert Joseph Mokal, Atlanta
William Joseph Morton, Cairo
Joseph Augustus Mulherin, Savannah
Elmer A. Musarra, Marietta
Injeti Sarveswar Naidu, Riverdale
Jose Behar Namer, Decatur
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Jim Lee Rogers, Rome
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ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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Specific therapy for painful night leg cramps

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Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

Quinamm™
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BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion In about half of these reports the malformation was deafness related to auditory nerve hypoplasia Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys Quinamm is contraindicated in women who are or may become pregnant If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use Recovery usually occurs following withdrawal of the medication and appropriate therapy

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine Quinamm should be stopped immediately if evidence of hemolysis appears

If symptoms occur, drug should be discontinued and supportive measures instituted In case of overdosage, see OVERDOSAGE section of prescribing information

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine have been taken Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine (See Drug Interactions)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration Because of possible similar effects from use of quinine it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine

Cinchona alkaloids, including quinine have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants

The effects of neuromuscular blocking agents (particularly pancuronium succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0 1%) to rats for periods up to 20 months showed no evidence of neoplastic changes

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test Intraperitoneal injections (0 5 mM kg) were given twice 24 hours apart Direct *Salmonella typhimurium* tests were negative, when mammalian liver hemogenate was added, positive results were found

No information relating to the effect of quinine upon fertility in animal or in man has been found

Pregnancy

Category X See CONTRAINDICATIONS

Nonteratogenic Effects

Because quinine crosses the placenta in humans the potential for fetal effects is present Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown Quinine in toxic amounts has been associated with abortion Whether this action is always due to direct effect on the uterus is questionable

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts)

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (Individual or multiple symptoms may represent cinchonism or hypersensitivity)

Hematologic acute hemolysis, thrombocytopenic purpura agranulocytosis, hypoprothrombinemia

CNS visual disturbances, including blurred vision with scotomata photophobia diplopia, diminished visual fields and disturbed color vision tinnitus, deafness and vertigo, headache nausea vomiting fever apprehension, restlessness confusion, and syncope

Dermatologic/allergic cutaneous rashes (urticarial the most frequent type of allergic reaction papular or scarlatinal) pruritus flushing of the skin sweating occasional edema of the face

Respiratory asthmatic symptoms

Cardiovascular anginal symptoms

Gastrointestinal nausea and vomiting (may be CNS-related) epigastric pain

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose

DOSAGE AND ADMINISTRATION

1 tablet upon retiring If needed 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring

After several consecutive nights in which recumbency leg cramps do not occur Quinamm may be discontinued in order to determine whether continued therapy is needed

Product Information as of October 1980

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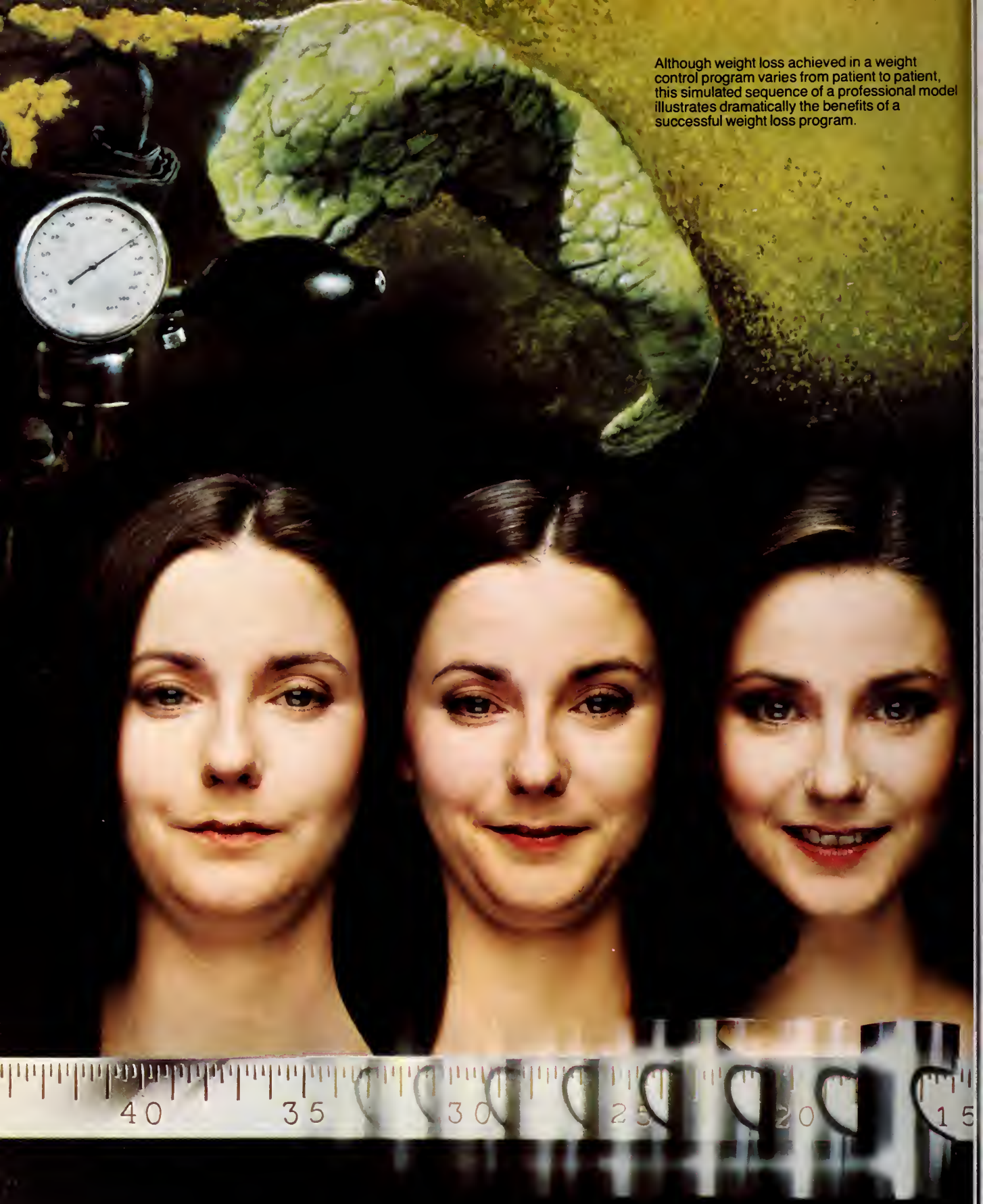
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...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

prescribe

Tenuate* Dospan* ℃

(diethylpropion hydrochloride USP)

75 mg controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate–it makes sense. And it's responsible medicine.

Merrell Dow

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed., New York Raven Press, 1978, pp. 391-404

Tenuate® ℃
(diethylpropion hydrochloride USP)

Tenuate Dospan® ℃
(diethylpropion hydrochloride USP)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

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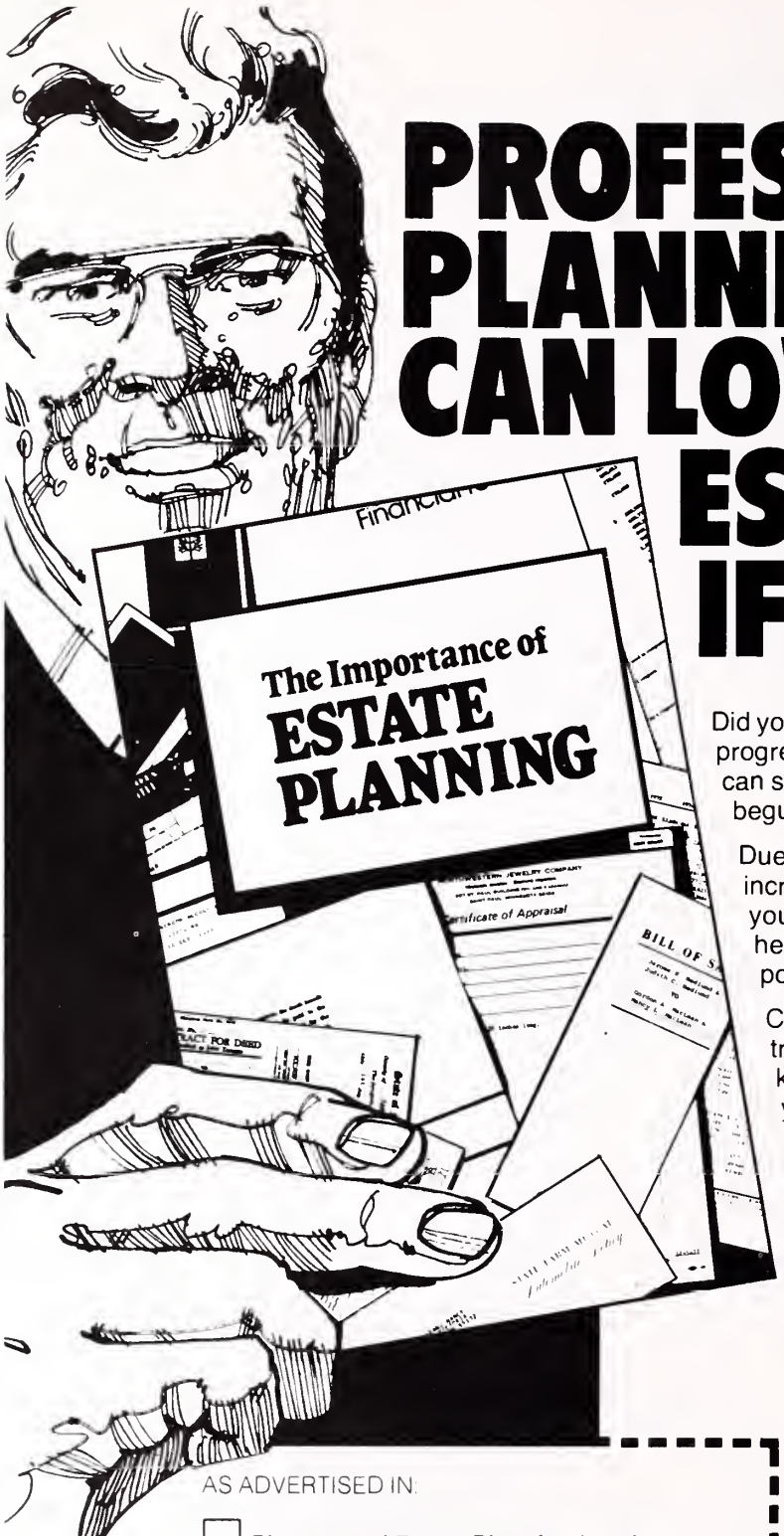
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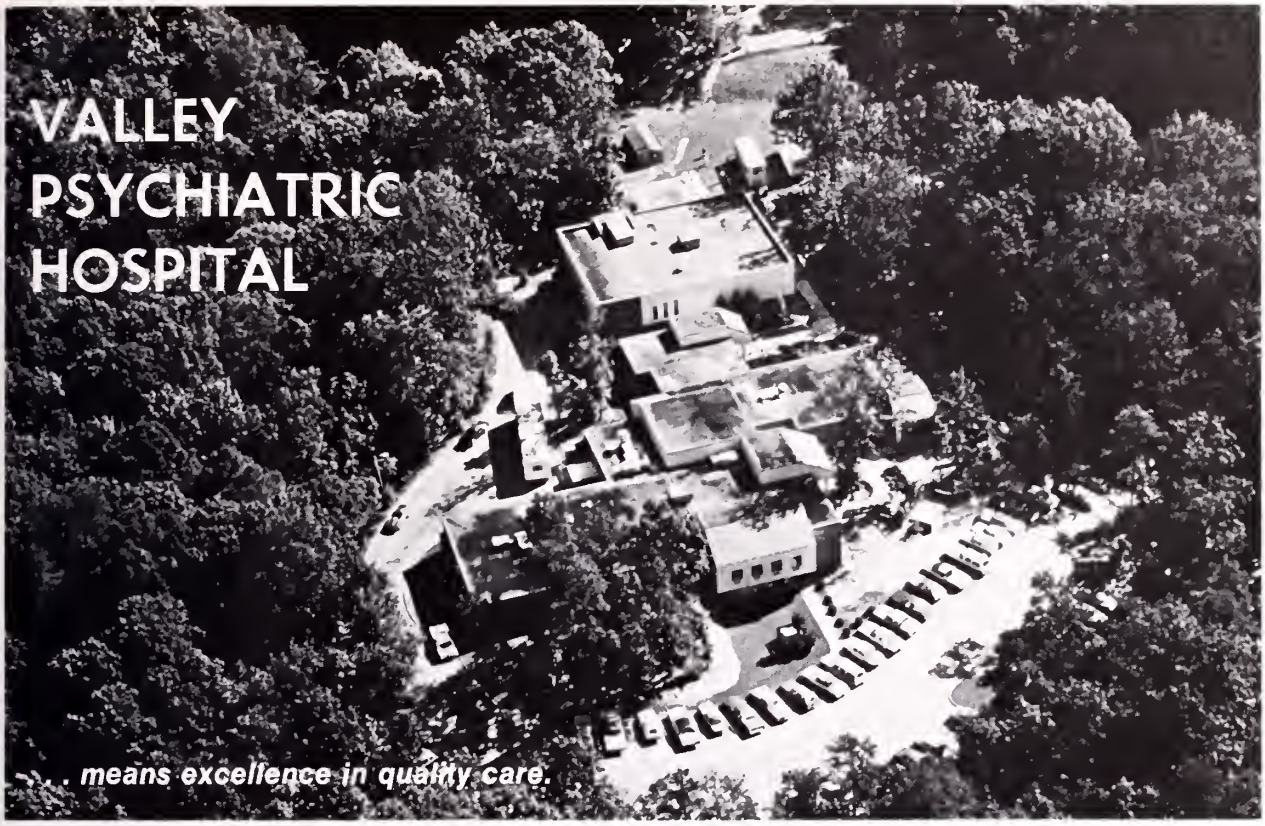
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Weekly meetings of the treatment team are held to modify the original treatment plan based on the patient's progress while in the hospital.

CHILD AND ADOLESCENT PROGRAM—Valley maintains a child and adolescent program for youngsters undergoing specific difficulties in growth and development. This program provides individual as well as group therapy and includes activities in art, sports and field trips of special interest to this age group.

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REFERRAL—Valley maintains a 24-hour, seven-day-a-week emergency referral service. Referrals are accepted from psychiatrists and other physicians, the clergy, social workers, mental health professionals, social agencies, self and family.

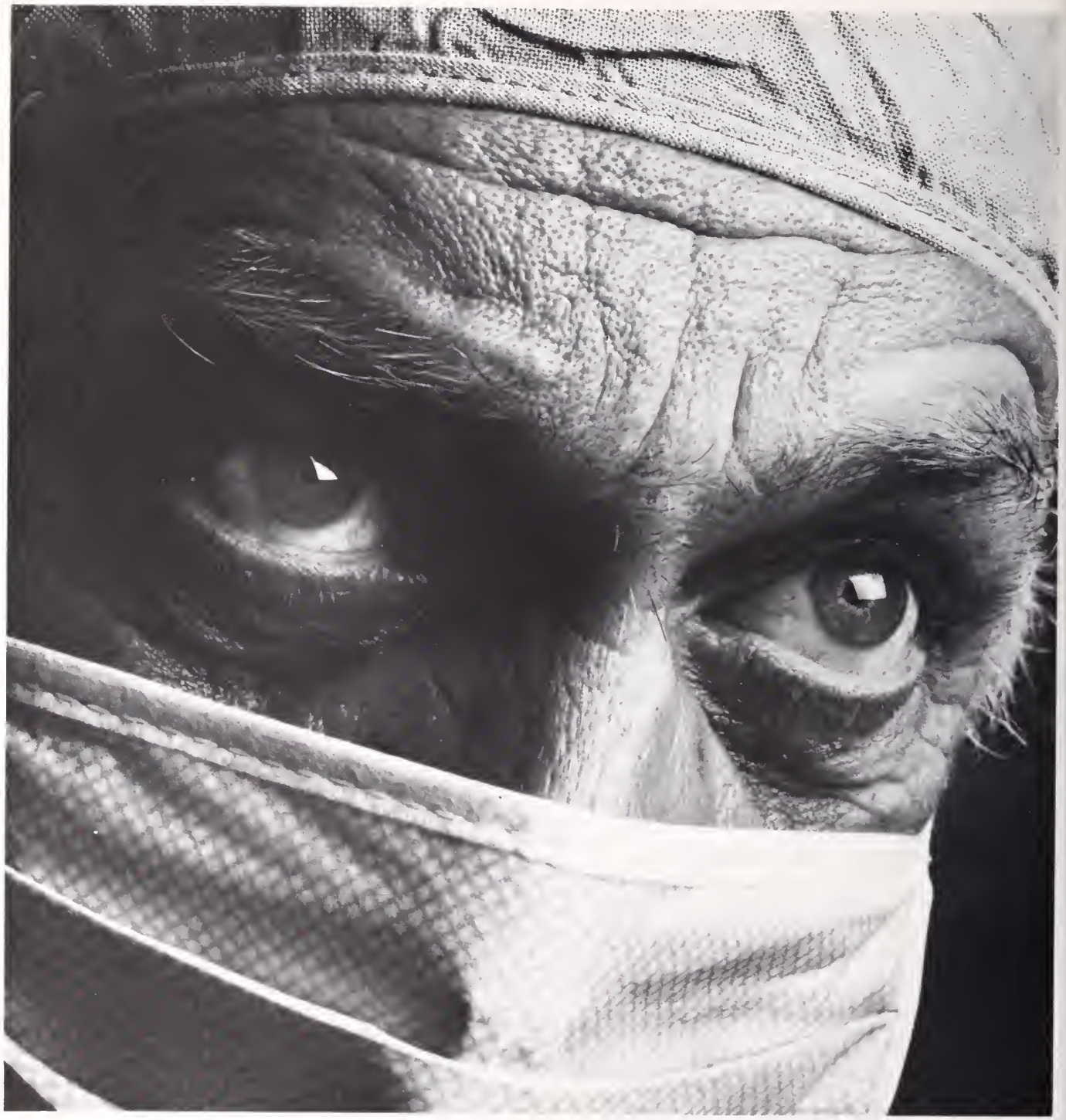
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Dr. Robert G. Aug, M.D., Medical Director

Dr. G. Michael Schmits, M.D., Medical Director of the Child and Adolescent Program

Dr. Kenneth E. Shoemaker, M.D., Medical Director of the Substance Abuse Program

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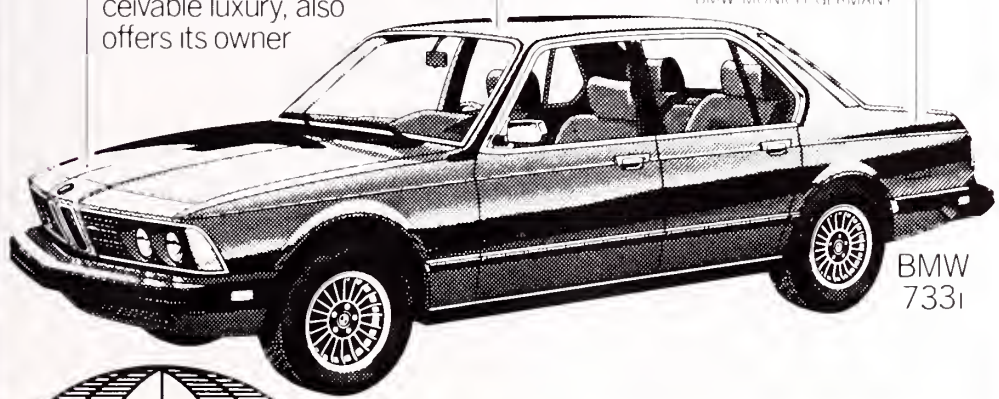
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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

NEWS NOTES — District and county medical societies, Association members, and readers are invited to send in any news items of general concern to members of the Medical Association of Georgia.

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Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels.
Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea;* epigastric pain;* heartburn;* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness;* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation; gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

J-9042-4

July 1981



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MAG Scientific Assembly 1981

Specialty societies come together.

MAG handles the details.

You get the rewards.

The MAG Scientific Assembly

November 20-22

Omni International Hotel

Atlanta

Georgia's premier forum for specialty society medical education.

HIGHLIGHTS OF THE PROGRAM

Registrotian at the Scientific Assembly entitles you to ottend ony and oll programs of your choice. Don't overlook the possibility of a society besides yaur awn offering presentotions of interest to you!

OF SPECIAL INTEREST TO . . .

ALL PHYSICIANS
"Hypnosis in Medicine" — see PSYCHIATRY
"Health Care in the People's Republic of Chino" — see PUBLIC HEALTH

RADIOLOGISTS
"Interventionol Rodiology,"
"Noninvasive Evoluation of the Corotid Artery" — see INTERNAL MEDICINE
"Positron Emission Tomagrophy" — see INTERNAL MEDICINE/NEUROLOGY

PEDIATRICIANS
"Pulmonary Profile and Indicotors of Moturity" — see PATHOLOGY

GASTROENTEROLOGISTS
"Sphincter Control by Biafeedbock,"
"Deloyed Gastric Emptying" — see INTERNAL MEDICINE

OBSTETRICIANS/GYNECOLOGISTS
"Monitoring the High Risk Pregnant Patient,"
"Laborotory Diagnosis of Pregnoncy,"
"Secondary Amenorrheo," and
"Pathology af Obstetrics ond Gynecology" — see PATHOLOGY

UROLOGISTS
"Controversies in Prostate Concer" — see INTERNAL MEDICINE

OPHTHALMOLOGISTS
"Cosmetic Surgery of the Eyelid" — see OTOLARYNGOLOGY

ALLERGISTS
"State of the Art: Asthma" — see CHEST DISEASE

OTOLARYNGOLOGISTS
"Laryngeol Concer" — see SURGERY

THE PROGRAM AT A GLANCE . . .

ALLERGY/PEDIATRICS
Bronchodilators in Asthmo
Steroids in Asthmo

CHEST DISEASE
Interstitial Lung Disease
Asthmo
Pulmonory Embolism

EMERGENCY MEDICINE
Cordiologic Emergencies
Management af Common Wounds
Hydrocorbon Ingestion

GASTROENTEROLOGY
Dysphogia
Esophageal Voriceol Sclerosis
Gostric Atony Syndrome
Dissolution of Gollstones
Scleroderma
Colonic Polyp-Cancer Sequence

GASTROENTEROLOGY/SURGERY
Esophogeol Reflux Symposium

INTERNAL MEDICINE
Coronory Artery Diseose
Angioplasty
Deloyed Gastric Emptying
Prostate Cancer
Interventionol Rodiology
New Approoches to Pain
Plosmopharesis
Marrow Tronsplontotion

INTERNAL MEDICINE/NEUROLOGY
Evoluotion of the Corotid Artery
Pituitory Diseose
Positron Emission Tomogrophy

NEUROLOGY
The Axone
Neurophysiologic Bosis af Poin

OPHTHALMOLOGY
Ethics ond Marketing Ophtholmology
Introculor Lens Session
Retino-Vitreous Session
Gloucoma-Oculoplostics Session
Corneo Session

ORTHOPEDIC SURGERY
Comminuted Femorol Froctures
Plating Foreorm Froctures
Monogement of Infected Tibios
Internol Fixation af Minor Bones

OTOLARYNGOLOGY
Repoir of the Eyelid
Cosmetic Surgery of the Eyelid
Lacrimal ond Sinus Surgery
Loryngo-Trocheol Injuries

PATHOLOGY
Pothology of Ob-Gyn
Monitoring High Risk Pregnoncy
Pulmonory Profile ond Moturity
Loborotory Diognosis of Pregnoncy
Diognosis of Secondary Amenorrheo
Monaging the Pregnant Potient

PLASTIC SURGERY
Thoracic Reconstruction
Abdominol Woll Reconstruction

PSYCHIATRY
Advonces in Neuropsychiotry
Tricyclic Antidepressants
Hypnosis in Medicine

PUBLIC HEALTH
Heolth Core in China

SURGERY
Rodicol Mostectomy
Loryngeol Concer
Tumor Morkers
Stoge III Corcinoma of the Lung
Primory Hyperporothyroidism
Corcinoma of the Oral Covity
Familiol Large Bowel Concer
Tumor Problems

MAG Scientific Assembly 1981

Preliminary Program

The Medical Association of Georgia cordially invites you to attend its 7th annual Scientific Assembly on November 20-22, 1981, at the Omni International Hotel in downtown Atlanta. This Scientific Assembly program features 15 specialty society sessions, each of which is accredited for AMA Category 1 hours.

All scientific programs are planned by representatives of the participating societies in order to assure you of the most useful continuing medical education for your practice.

MAG SCIENTIFIC ASSEMBLY COMMITTEE

C. Rex Teeslink, M.D., Augusta, Chairman
Edwin C. Evans, M.D., Atlanta
Ellis B. Keener, M.D., Atlanta
Arthur J. Merrill, Jr., M.D., Atlanta
A. Calhoun Witham, M.D., Augusta

SPECIALTY SOCIETY PROGRAM CHAIRMEN — 1981 SCIENTIFIC ASSEMBLY

Allergy: KENNETH E. PEIRCE, M.D., Columbus
Allergy and Immunology Society of Georgia

Chest Disease: ROLAND S. SUMMERS, M.D., Savannah
Georgia Thoracic Society, Georgia Lung Association, American College of Chest Physicians

Emergency Medicine: WILLIAM W. WATSON, M.D., Marietta
MICHAEL K. RAY, M.D., Smyrna
Georgia Chapter, American College of Emergency Physicians

Gastroenterology: RONALD R. FAGIN, M.D., Savannah
Georgia Gastroenterologic Society

Internal Medicine: H. KENNETH WALKER, M.D., Atlanta
American College of Physicians

Neurology: RICHARD D. FRANCO, M.D., Atlanta
Georgia Neurological Society

Neurosurgery: NETTLETON S. PAYNE, M.D., Atlanta
Georgia Neurosurgical Society

Ophthalmology: WILLIAM S. HAGLER, M.D., Atlanta
Georgia Society of Ophthalmology

Orthopedic Surgery: WILLIAM C. COLLINS, M.D., Atlanta
Georgia Orthopedic Society

Otolaryngology: WILLIAM E. SILVER, M.D., Atlanta
Georgia Society of Otolaryngology

Pathology: FLOYD JAMES, M.D., Dalton
Georgia Association of Pathologists
ALEX T. PARKINSON, M.D., Snellville
Atlanta Society of Pathologists

Pediatrics: CHARLES W. LINDER, M.D., Augusta
Georgia Chapter, American Academy of Pediatrics

Plastic Surgery: WILLIAM W. BLACKBURN, II, M.D., Atlanta
Georgia Society of Plastic Surgeons

Psychiatry: MICHAEL A. HABERMAN, M.D., Atlanta
Georgia Psychiatric Association

Public Health: MELODY A. STANCIL, M.D., LaGrange
Georgia Chapter, American Association of Public Health Physicians

Surgery: EUGENE D. DAVIDSON, M.D., Atlanta
Georgia Chapter, American College of Surgeons

The outstanding work of these physicians allows us once again to refer to the 1981 MAG Scientific Assembly as Georgia's premier forum for specialty society medical education. I'll see you at the Omni.

Rex Teeslink

C. Rex Teeslink, M.D.

GENERAL INFORMATION

REGISTRATION

Please pre-register for the Scientific Assembly by completing the registration form at the beginning of this program, detoching it from the hotel reservation form, and mailing it with your registration fee to the MAG headquarters office.

Registration desks at the Assembly will be located at the East Foyer, bottom floor of the Convention Center of the Omni Internotional Hotel. Registration hours will be Friday 8:00-5:00, Saturday 8:00-5:00, and Sunday 8:00-2:00.

HOTEL RESERVATIONS

If you wish hotel accommodations, pleose complete and detach the bottom portion of the registration form and moil it directly to the Omni International Hotel by Nov. 5, 1981. As stated on the hotel card, Thursday reservotions must be guoranteed. Should you not arrive on this dote or coll in the cancellation before 6 p.m., you will be billed for both the room and tax. Fridoy ond Saturday reservations will be held until 6 p.m. unless guaranteed or covered by deposit.

The Omni International Hotel is located in downtown Atlanta at the intersection of International Boulevard and Marietta Streets, 11 blocks west of I-75/85. Parking facilities are available beneath the hotel (Marietta Street entrance) as well as in surrounding lots.

CREDIT FOR CME

As on organization accredited for continuing medical education, the Medical Association of Georgia designotes all scientific programs as meeting the criteria for Category I credit on an hour-for-hour basis for the Physician's Recognition Award of the American Medical Association.

SPECIAL FEATURES

CONFERENCE ON MEDICAL EDUCATION: The Role of Health Profession Education in Shaping the Future of Medical Practice: "Who Is Caring for the Patient?"

Cosponsored by the Medical Association of Georgia, the Emory University School of Medicine, the Medical College of Georgia School of Medicine, the School of Medicine at Morehouse College, ond the Mercer University School of Medicine. Scheduled on Thursdoy, November 19, 2:00-5:00 p.m.

The program, which is free to all registrants of the Scientific Assembly, includes presentations by deans of the medical schools in Georgia on the subject of training professionals for patient care in the future. Question/answer and discussion group sessions will allow all participants to exchange views on this significont subject.

GSIM LUNCHEON: There will be a luncheon sponsored by the Georgia Society of Internal Medicine on Friday, Nov. 20, 12:30-2:00 p.m.

EMORY AND MCG ALUMNI RECEPTIONS: Medical Alumni receptions have been arranged by the following medical schools: Emory University School of Medicine — Friday, 7:00-8:00 p.m. (contact the Emory Alumni Office in Atlanta, 404-329-6199); Medical College of Georgia School of Medicine — Fridoy, 7:00-8:00 p.m. (contact the Alumni Office in Augusta, 404-828-4001).

SPECIALTY SOCIETY LUNCHEONS AND RECEPTIONS: Luncheons have been scheduled by the following specialty societies:

American College of Surgeons — Friday, 12:00-2:00 p.m.
Allergy and Immunology Society of Georgia — Friday, 12:00-1:20 p.m.
Georgia Society of Ophthalmology — Saturday, 12:00-1:00 p.m.
Georgia Neurological Society — Saturday, 12:30-2:00 p.m. (includes reception)

Reservations may be made by contacting the respective specialty society program chairmen. Additional information will be available at the registration desk at the Scientific Assembly.

Afternoon receptions have been scheduled by:
Georgia Thoracic Society — Friday, 5:15 p.m.
Allergy and Immunology Society of Georgia — Friday, 5:00 p.m.
Georgia Association of Pathologists — Saturday, 6:30 p.m.

EXHIBITS

Scientific and technical exhibits will be displayed on the ground floor of the Convention Center at the Omni International Hotel. Please visit with our exhibitors — the Scientific Assembly Committee believes each has something of benefit for you.

MESSAGE CENTER

A messoge center will be maintained for the convenience of members and guests of the MAG at the registration desk, located at the International Promenade in the Convention Center of the Omni International Hotel.

ADDED FEATURE!

"ENHANCING YOUR FINANCIAL SKILLS" seminar for physicians and their spouses. Thursday, Nov. 19, 1:00-9:00 p.m. Co-sponsored by the American Medical Association and the Medical Association of Georgia. Designed to introduce you to the concepts needed to make sound financial decisions:

- The newest techniques of budgeting used by professional personal financial planners.
- How to understand the securities, bond, and option markets to formulate successful investment strategies.
- Exactly how much and what type of insurance a medical family really needs.
- Understanding the basic principles of successful tax and estate planning.
- How to invest in the real estate market — understanding the components of a good deal.

The program features out-of-state and local specialists in investments, insurance, real estate and tax planning. Registration is limited to 100 persons.

FEE FOR MAG MEMBERS: $90; NON-MEMBERS: $130
The above fees include spouses.

For information on program and speakers, contact Stephen Davis at the MAG: 404-876-7535 or 800-282-0224 (toll-free in Georgia).

ALLERGY/PEDIATRICS

ALLERGY AND IMMUNOLOGY SOCIETY OF GEORGIA GEORGIA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS

Program Chairmen
KENNETH E. PEIRCE, M.D., Columbus
CHARLES W. LINDER, M.D., Augusto

Guest Speakers
SAM R. MARNEY, M.D., Vanderbilt University Medical Center, Noshville, Tennessee
HELEN MORRIS, M.D., National Jewish Hospital and Research Center; Notionol Asthma Center and University of Colorado Medical School, Denver, Colorado

FRIDAY, NOVEMBER 20, 1:30-5:00

Presiding
DAVID G. TINKELMAN, M.D., President
Allergy ond Immunology Society of Georgio, Atlonta

12:00-1:20 LUNCHEON

ALLERGY AND IMMUNOLOGY SOCIETY OF GEORGIA GEORGIA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS
Sponsored by Glaxo, Inc.

1:30-2:15

CURRENT USE OF BRONCHODILATORS IN ASTHMA

SAM R. MARNEY, M.D., Nashville, Tennessee

Choice of drugs, route of administration, dosoge, duration, and mechanism of action of the bronchodilators will be discussed, with emphasis on recent advances in the therapy of asthma.

2:15-2:30

ALLERGY TO FUNGAL ANTIGENS

STEVEN G. HELM, M.D., Fellow in Allergy-Immunology Medicol College of Georgia, Augusto

2:30-2:45

COMPARISON OF THE NEWLY AVAILABLE ADRENERGIC AGENTS

DAVID G. TINKELMAN, M.D., Atlonta

2:45-3:00 — BREAK

3:00-3:45

USE OF STEROIDS IN THE TREATMENT OF ASTHMA

HELEN MORRIS, M.D., Denver, Colorado

Choice of drugs, route of administration, dosage, durotion, ond mechanism of action of steroids will be discussed with emphosis on safety ond recent odvonces in steroid therapy of osthma.

3:45-4:00 — QUESTIONS

4:00-5:00 BUSINESS MEETING

ALLERGY AND IMMUNOLOGY SOCIETY OF GEORGIA

5:00 RECEPTION

ALLERGY AND IMMUNOLOGY SOCIETY OF GEORGIA GEORGIA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS

Sponsored by Ross Laboratories

Program is acceptable for 2¼ hours of Category 1 credit for the AMA Physician's Recognition Award.

CHEST DISEASE

GEORGIA THORACIC SOCIETY GEORGIA CHAPTER, AMERICAN COLLEGE OF CHEST PHYSICIANS

Program Chairman
RONALD S. SUMMERS, M.D., Sovonnoh

Guest Speakers
JOHN DWYER, M.D., Associate Professor Pediatrics & Medicine, Yale University Medical School, New Haven, Connecticut
WHITNEY W. ADDINGTON, M.D., Professor of Medicine, Chairman Pulmonary Division, University of Chicago, Chicago, Illinois
THOMAS DEMEESTER, M.D., Professor of Surgery, Chairmon Thorocic Surgery, University of Chicago, Chicago, Illinois

FRIDAY, NOVEMBER 20, 1981, 1:00-5:15 p.m.

INTERSTITIAL LUNG DISEASE 1981

Presiding
ROLAND S. SUMMERS, M.D., Associate Clinical Professor (MCG), Deportment of Medicine, Memorial Medical Center, Savannah

1:00-2:00

INTERSTITIAL LUNG DISEASE: INTRODUCTION AND OVERVIEW

WHITNEY W. ADDINGTON, M.D.
Nashville, Tennessee

2:00-3:00

INTERSTITIAL LUNG DISEASE: IMMUNOLOGY

JOHN DWYER, M.D.
New Haven, Connecticut

3:00-3:15 — **BREAK**

3:15-4:15

INTERSTITIAL LUNG DISEASE: SURGICAL ASPECTS

THOMAS DEMEESTER, M.D.
Chicago, Illinois

4:15-5:15 **BUSINESS MEETING**
GEORGIA THORACIC SOCIETY
Alan Plummer, M.D., Presiding

GEORGIA CHAPTER, AMERICAN COLLEGE OF CHEST PHYSICIANS
Roy Crispin, M.D., Presiding

5:15 **RECEPTION**
GEORGIA THORACIC SOCIETY
GEORGIA CHAPTER, AMERICAN COLLEGE CHEST PHYSICIANS

SATURDAY, NOVEMBER 21, 1981, 9:00-11:15 a.m.

STATE OF THE ART: POTPOURRI OF PULMONARY MANIFESTATIONS

Presiding
ANTHONY M. COSTRINI, M.D., Educotion Committee, Georgia Thoracic Society, Savonnah

9:00-10:00

STATE OF THE ART: ASTHMA

JOHN DWYER, M.D.
New Haven, Connecticut

10:00-10:15 — **BREAK**

10:15-11:15

STATE OF THE ART: PULMONARY EMBOLISM

WHITNEY W. ADDINGTON, M.D.
Chicago, Illinois

This program has been portiolly funded through contributions from the Schering Phormoceuticol Compony, Boeringer-Ingleheim Pharmaceuticol Compony, ond Stansell's Oxygen Service.

Program is acceptable far 5 haurs of Category 1 credit for the AMA Physicion's Recognition Award.

EMERGENCY MEDICINE

GEORGIA CHAPTER, AMERICAN COLLEGE OF EMERGENCY PHYSICIANS

Program Chairmen
WILLIAM W. WATSON, M.D., Morietto
MICHAEL K. RAY, M.D., Marietto

Guest Speaker
THOMAS E. FITZGERALD, M.D., Tawos St. Joseph's Hospital, Towos, Michigon

SATURDAY, NOVEMBER 21, 1:00-4:30 P.M.

Presiding
WILLIAM W. WATSON, M.D., ond **MICHAEL K. RAY, M.D.,** Kennestane Hospital, Marietto

1:30-2:30

MANAGEMENT OF CARDIOLOGIC EMERGENCIES: ILLUSTRATIVE CASES OF TACHY AND BRADY ARRHYTHMIAS

JOHN A. STONE, M.D.
Director
Department of Emergency Medicine
Emory-Grady Affilioted Hospitals
Atlonto

2:30-3:30

EVALUATION AND MANAGEMENT OF COMMON WOUNDS SEEN IN THE EMERGENCY ROOM

FOAD NAHAI, M.D.
Emory University School of Medicine
Atlanta

3:30-3:45 — **BREAK**

3:45-4:45

TAKING A STAND ON HYDROCARBON INGESTION MANAGEMENT

THOMAS E. FITZGERALD, M.D.
Towas, Michigon

Pragram is acceptable far 3 haurs af Category 1 credit for the AMA Physician's Recognitian Award.

GASTROENTEROLOGY

GEORGIA GASTROENTEROLOGIC SOCIETY

Program Chairman
R. R. FAGIN, M.D., President, Georgia Gastroenterologic Society, Savannoh

Guest Speaker
DONALD CASTELL, M.D., Professor of Medicine, Uniform Service School of Medicine, Bethesdo, MD

FRIDAY, NOVEMBER 20, 2:00-5:00 P.M.

Presiding
R. R. FAGIN, M.D., Sovonnoh

2:00-2:05

WELCOME

R. R. FAGIN, M.D.
Sovonnoh

2:05-2:35

DYSPHAGIA — AN UPDATE

DONALD CASTELL, M.D.
Bethesdo, Morylond

2:35-2:55

ESOPHAGEAL VARICEAL SCLEROSIS

FRANCIS TEDESCO, M.D.
Chief, Section of Gostroenterology
Medicol College of Georgio
Augusto

2:55-3:15

GASTRIC ATONY SYNDROME

MICHAEL S. PERKEL, M.D.
Section of Gostroenterology
Emory University School of Medicine
Atlonto

3:15-3:35 — BREAK

3:35-3:55

RESULTS OF NATIONAL COOPERATIVE STUDY ON THE DISSOLUTION OF GALLSTONES

THEODORE HERSH, M.D.
Professor of Medicine
Section of Gostroenterology
Emory University School of Medicine
Atlonto

3:55-4:15

SCLERODERMA AND OTHER SECONDARY CAUSES FOR ESOPHAGEAL MOTILITY PROBLEMS

DONALD CASTELL, M.D.
Bethesdo, Morylond

4:15-4:35

COLONIC POLYP-CANCER SEQUENCE

FRANCIS TEDESCO, M.D.
Augusto

4:35-5:00 — PANEL: QUESTION AND ANSWERS

SATURDAY, NOVEMBER 21, 9:00-12:00

A JOINT MEETING OF THE GEORGIA GASTROENTEROLOGIC SOCIETY AND THE GEORGIA CHAPTER, AMERICAN COLLEGE OF SURGEONS

ESOPHAGEAL REFLUX SYMPOSIUM

Presiding
EUGENE D. DAVIDSON, M.D., Atlonto

9:00-10:00

MEDICAL ASPECTS OF ESOPHAGEAL REFLUX

DONALD CASTELL, M.D.
Bethesdo, Morylond

10:00-10:30

PREOPERATIVE EVALUATION OF PATIENTS FOR ESOPHAGEAL SURGERY

THOMAS R. DEMEESTER, M.D.
Professor ond Chief of Thorocic ond Cordiovosculor Surgery
University of Chicogo School of Medicine
Chicogo, Illinois

10:30-10:45 — BREAK

10:45-11:15

RESULTS OF ANTIREFLUX SURGERY

THOMAS R. DEMEESTER, M.D.
Chicogo, Illinois

11:15-12:00

PANEL DISCUSSION ON REFLUX ESOPHAGITIS

Moderator
EUGENE D. DAVIDSON, M.D., Atlonto

Panel
TALMADGE A. BOWDEN, JR., M.D., Assistont Professor of Surgery, Medicol College of Georgio, Augusto
DONALD CASTELL, M.D., Bethesdo, Morylond
THOMAS R. DEMEESTER, M.D., Chicogo, Illinois
THEODORE HERSH, M.D., Atlonto

Progrom is occeptoble for 5½ hours of Cotegory 1 credit for the AMA Physicion's Recognition Aword.

INTERNAL MEDICINE

GEORGIA CHAPTER, AMERICAN COLLEGE OF PHYSICIANS

Program Chairman
H. KENNETH WALKER, M.D., Atlonto

Guest Speaker
DANIEL D. FEDERMAN, M.D., Professor of Medicine, Deon for Students ond Alumni, Horvord Medicol School, Boston, Mossochusetts

FRIDAY, NOVEMBER 20, 9:00-5:30 P.M.

Presiding
H. KENNETH WALKER, M.D., Professor of Medicine
Emory University School of Medicine, Atlanta

9:00-9:45

CORONARY ARTERY DISEASE

J. WILLIS HURST, M.D.
Candler Professor of Medicine (Cardiology)
Chairman, Department of Medicine
Emory University School of Medicine
Atlanta

9:45-10:30

ANGIOPLASTY

ANDREAS GRUENTZIG, M.D.
Professor of Medicine (Cardiology)
Emory University School of Medicine
Atlanta

10:30-10:45 — BREAK

10:45-11:00

SPHINCTER CONTROL BY BIOFEEDBACK

THEODORE HERSH, M.D.
Professor of Medicine (Digestive Diseases)
Emory University School of Medicine
Atlanta

11:00-11:30

DIAGNOSIS AND TREATMENT OF DELAYED GASTRIC EMPTYING

MICHAEL S. PERKEL, M.D.
Assistant Professor of Medicine (Digestive Diseases)
Emory University School of Medicine
Atlanta

11:30-12:15

CONCEPTS AND CONTROVERSIES IN PROSTATE CANCER

JAMES F. GLENN, M.D.
Professor of Surgery (Urology)
Dean, Emory University School of Medicine
Atlanta

12:15-12:30

RECOGNITION AND MANAGEMENT OF NUTRITIONALLY DEPLETED PATIENTS IN YOUR HOSPITAL

STANLEY P. RIEPE, M.D.
Assistant Professor of Medicine (Digestive Diseases)
Emory University School of Medicine
Atlanta

12:30-2:00 LUNCHEON

GEORGIA SOCIETY OF INTERNAL MEDICINE

2:00-3:00

INTERVENTIONAL RADIOLOGY

WILLIAM J. CASARELLA, M.D.
Chairman, Department of Radiology
Emory University School of Medicine
Atlanta

3:00-4:00

NEW APPROACHES TO PAIN

JOSÉ OCHOA, M.D., Ph.D.
Professor of Neurology
Dartmouth Medical School
Hanover, New Hampshire

4:00-4:15 — BREAK

4:15-5:00

PLASMAPHARESIS

JEROME B. ORLIN, M.D.
Assistant Professor of Medicine (Hematology)
Emory University School of Medicine
Atlanta

5:00-5:30

MARROW TRANSPLANTATION

LEONARD T. HEFFNER, M.D.
Assistant Professor of Medicine (Hematology)
Emory University School of Medicine
Atlanta

SATURDAY, NOVEMBER 21, 9:00-12:15 P.M.

A JOINT MEETING OF THE GEORGIA CHAPTER, AMERICAN COLLEGE OF PHYSICIANS AND THE GEORGIA NEUROLOGICAL SOCIETY

Presiding
RICHARD D. FRANCO, M.D., Clinical Instructor in Neurology, Emory University School of Medicine, Atlanta

H. KENNETH WALKER, M.D., Atlanta

9:00-10:00

EVALUATION OF THE CAROTID ARTERY BY NONINVASIVE TECHNOLOGY

ROBERT ACKERMAN, M.D.
Associate Professor of Radiology
Harvard Medical School
Director of Carotid Evaluation and
Cerebral Blood Flow Laboratories
Massachusetts General Hospital and
Harvard Medical School
Boston, Massachusetts

10:00-10:30 — PANEL DISCUSSION AND QUESTIONS

10:30-10:45 — BREAK

10:45-11:45

PITUITARY DISEASE

DANIEL D. FEDERMAN, M.D.
Boston, Massachusetts

11:45-12:30

NEW TECHNOLOGY IN CEREBROVASCULAR DISEASE: POSITRON EMISSION TOMOGRAPHY

ROBERT ACKERMAN, M.D.
Boston, Massochusetts

Program is acceptoble far 9¾ hours af Cotegary 1 credit for the AMA Physician's Recognitian Aword.

NEUROLOGY

GEORGIA NEUROLOGICAL SOCIETY

Program Chairman
RICHARD D. FRANCO, M.D., Atlanta

Guest Speakers
ROBERT ACKERMAN, M.D., Associote Professor of Radiology, Horvard Medical School; Director of Carotid Evaluation ond Cerebral Blaad Flow Loborotories, Massochusetts General Hospital and Horvord Medical School, Boston, Massachusetts
JOSÉ OCHOA, M.D., Ph.D., Professor of Neuralogy, Dortmauth Medicol School, Honover, New Hompshire

SATURDAY, NOVEMBER 21, 9:00-12:15 P.M.

A JOINT MEETING OF THE GEORGIA NEUROLOGICAL SOCIETY AND THE GEORGIA CHAPTER, AMERICAN COLLEGE OF PHYSICIANS

Presiding
RICHARD D. FRANCO, M.D., Clinical Instructor in Neurology, Emory University School of Medicine, Atlanta
H. KENNETH WALKER, M.D., Prafessor of Medicine Emary University Schaol of Medicine, Atlonta

9:00-10:00

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ROBERT ACKERMAN, M.D.
Boston, Mossachusetts

10:00-10:30 — PANEL DISCUSSION AND QUESTIONS

10:30-10:45 — BREAK

10:45-11:45

PITUITARY DISEASE

DANIEL D. FEDERMAN, M.D.
Prafessor of Medicine
Dean far Students and Alumni
Harvard Medicol Schaol
Boston, Massachusetts

11:45-12:30

NEW TECHNOLOGY IN CEREBROVASCULAR DISEASE: POSITRON EMISSION TOMOGRAPHY

ROBERT ACKERMAN, M.D.
Boston, Mossochusetts

12:30-2:00 RECEPTION AND LUNCHEON
GEORGIA NEUROLOGICAL SOCIETY

2:00 A MEETING OF THE
GEORGIA NEUROLOGICAL SOCIETY

2:00-3:00

THE AXONE IN HEALTH AND DISEASE

JOSÉ OCHOA, M.D., Ph.D.
Honover, New Hompshire

3:00-4:00

THE NEUROPHYSIOLOGIC BASIS OF PAIN WITH CLINICAL APPLICATION

JOSÉ OCHOA, M.D., Ph.D.
Hanover, New Hampshire

4:00-4:15

BREAK

4:15-5:00 BUSINESS MEETING
GEORGIA NEUROLOGICAL SOCIETY

Pragrom is acceptable far 5¼ hours of Categary 1 credit for the AMA Physician's Recagnition Aword.

OPHTHALMOLOGY

GEORGIA SOCIETY OF OPHTHALMOLOGY

Program Chairman
WILLIAM S. HAGLER, M.D., Atlanta

Guest Speaker
PHILIP HESSBURG, M.D., Detroit, Michigan

SATURDAY, NOVEMBER 21, 9:00-4:50 P.M.

INTRAOCULAR LENS SESSION

Presiding
WILLIAM S. HAGLER, M.D., Atlanto

9:00-9:15

KELMAN ANTERIOR CHAMBER INTRAOCULAR LENS IMPLANT — A PRELIMINARY REPORT

JOHN DAVIS, M.D.
Atlanta

RETINA-VITREOUS SESSION

9:15-9:30

RETINAL DETACHMENT SURGERY IN PATIENTS WITH INTRAOCULAR LENS

TERRY TAYLOR, M.D.
WILLIAM S. HAGLER, M.D.
Atlanta

9:30-9:45

NORRIE'S DISEASE: A CLINICAL AND PATHOLOGIC STUDY

EDWARD FINEBERG, M.D.
Augusta

9:45-10:00

UNUSUAL PRESENTATION OF MALIGNANT MELANOMA OF THE CHOROID

EDWIN DONNELLY, M.D.
Atlanta

10:00-10:15

THE USE OF VITRECTOMY TECHNIQUE FOR TREATMENT OF MACULAR PUCKERS

WILLIAM S. HAGLER, M.D.
Atlanta

10:15-10:30

RETINAL DETACHMENT COMPLICATED BY HYPOTONY AND SEVERE INTRAOCULAR INFLAMMATION: THE SICK EYE SYNDROME

WILLIAM H. JARRETT, II, M.D.
Atlanta

10:30-10:50 — BREAK

10:50-11:05

SURGICAL INTERVENTION IN PRE-PHTHISIS

HENRY KAPLAN, M.D.
Atlanta

11:05-11:20

MACULAR ABNORMALITIES AFTER RETINAL DETACHMENT SURGERY

TRAVIS MEREDITH, M.D.
Atlanta

11:20-12:15

MODERN TRENDS AND ETHICAL CONSIDERATIONS OF MARKETING OPHTHALMOLOGY

PHILIP HESSBURG, M.D.
Detroit, Michigan

12:15-1:15 LUNCHEON
GEORGIA SOCIETY OF OPHTHALMOLOGY

GLAUCOMA-OCULOPLASTICS SESSION

1:15-1:30

ETHYLENE OXIDE TOXICITY TO THE EYE

WALTER JAY, M.D.
DAVID HULL, M.D.
Augusta

1:30-1:45

PIGMENTARY GLAUCOMA: A NEW THEORY AND POSSIBLE CURE

DAVID CAMPBELL, M.D.
Atlanta

1:45-2:00

ARGON LASER TRABECULOPHOTOCOAGULATION IN THE TREATMENT OF PRIMARY OPEN ANGLE GLAUCOMA

THOMAS HARBIN, JR., M.D.
Atlanta

2:00-2:15

SECONDARY ANGLE CLOSURE GLAUCOMA IN RETROLENTAL FIBROPLASIA

ZANE POLLARD, M.D.
Atlanta

2:15-2:30

BIOMECHANICS OF SOCKET MOTILITY AND AN ENUCLEATION TECHNIQUE

CLINTON McCORD, M.D.
Atlanta

2:30-2:50 — BREAK

2:50-3:35

OPEN DISCUSSION

CORNEA SESSION

3:35-3:50

RESULTS OF PENETRATING KERATOPLASTY IN PSEUDOPHAKIC AND APHAKIC CORNEAL EDEMA

GEORGE WARING, M.D.
Atlanta

3:50-4:05

CORNEAL ENDOTHELIAL PHYSIOLOGY AND ULTRASTRUCTURE FOLLOWING RADIAL KERATOTOMY

DAVID HULL, M.D.
Augusta

4:05-4:20

OXYGEN TOXICITY AND THE CORNEA

WILLIAM COLES, M.D.
Atlanta

4:20-4:35

COMPARISON OF RESULTS AND COMPLICATIONS OF LENS IMPLANTATION AND KERATOPLASTY WITH CONTACT LENS CORRECTION AFTER APHAKIC KERATOPLASTY

H. DWIGHT CAVANAGH, M.D.
Atlanta

4:35-4:50

RADIAL KERATOTOMY IN GEORGIA — AN 18-MONTH FOLLOW-UP

ROBERT MARMER, M.D.
Atlanta

Program is acceptable for 6¼ hours of Category 1 credit for the AMA Physician's Recognition Award.

ORTHOPEDIC SURGERY

GEORGIA ORTHOPEDIC SOCIETY

Program Chairman
WILLIAM C. COLLINS, M.D., Atlanta

Guest Speakers
FRANCIS S. BOUMPHREY, M.D., Cleveland Clinic, Cleveland, Ohia
CARLOS PRIETTO, M.D., Garden Grave, Califarnia
GEORGE F. RAPP, M.D., Indianapalis, Indiana

SUNDAY, NOVEMBER 22, 8:30-4 P.M.

Presiding
WILLIAM C. COLLINS, M.D., Narthside Haspital, Scattish Rite Haspital, Atlanta

8:30-9:00

MANAGEMENT OF COMMINUTED FEMORAL FRACTURES

FRANCIS S. BOUMPHREY, M.D.
Cleveland, Ohia

9:00-9:30

"TRICKS OF TRADE" IN PLATING FOREARM FRACTURES

FRANCIS S. BOUMPHREY, M.D.
Cleveland, Ohia

9:30-10:00

MANAGEMENT OF INFECTED TIBIAS WITH NON-UNION

FRANCIS S. BOUMPHREY, M.D.
Cleveland, Ohia

10:00-10:15 — BREAK

10:15-11:15

"HANDS-ON" WORKSHOP IN INTERNAL FIXATION DEVICES

11:15-11:45

USE OF ELECTRICITY IN TIBIAL NON-UNIONS

GEORGE F. RAPP, M.D.
Indianapalis, Indiana

1:00-1:30

BLIND INSERTION OF FLUTED CURVED ROD FOR FRACTURES OF THE FEMUR

CARLOS PRIETTO, M.D.
Garden Grave, Califarnia

1:30-2:00

OPEN REDUCTION AND INTERNAL FIXATION OF MINOR BONES — USE OF SMALL BONE SET

(Speaker to be announced)

2:00-2:15 — BREAK

2:15-3:15

"HANDS-ON" WORKSHOP IN INTERNAL FIXATION DEVICES

Program is acceptable for 5 hours of Category 1 credit for the AMA Physician's Recognition Award.

OTOLARYNGOLOGY — HEAD AND NECK SURGERY

GEORGIA SOCIETY OF OTOLARYNGOLOGY GREATER ATLANTA OTOLARYNGOLOGY — HEAD AND NECK SURGERY SOCIETY

Program Chairman
WILLIAM E. SILVER, M.D., Atlanta

Guest Speaker
PIERRE GUIBOR, M.D., Assaciate Clinical Prafessar af Ophthalmalagy, Directar af Oculaplastic Service, New Yark Medical Callege, Westchester Caunty Medical Center

FRIDAY, NOVEMBER 20, 9:00-4:00 P.M.

Presiding
WILLIAM E. SILVER, M.D.
Shallawfard Cammunity Haspital, Atlanta
Narthside Haspital, Atlanta

9:00-9:45

REPAIR OF THE EYELID AND PERI-ORBITAL SKIN RELATED TO TRAUMA AND RECONSTRUCTION FOLLOWING SKIN CANCER REMOVAL

PIERRE GUIBOR, M.D.
New York, New York

9:45-10:45

FACIAL NERVE SURGERY AND COSMETIC SURGERY RELATED TO PROBLEMS OF THE EYELID

PIERRE GUIBOR, M.D.
New York, New York

10:45-11:00 — BREAK

11:00-12:00

LACRIMAL SAC AND DUCT SURGERY COMBINED WITH SINUS SURGERY

PIERRE GUIBOR, M.D.
New York, New York

12:00-1:00 — DISCUSSION

2:30-4:00

PANEL DISCUSSION: LARYNGOTRACHAEL INJURIES

Moderator
WILLIAM E. SILVER, M.D., Atlanta

Panel
PETER N. SYMBAS, M.D., Emory University School of Medicine, Atlanta
FACULTY MEMBERS, Emory University School of Medicine
SELECTED GUESTS

Immediate treatment, delayed treatment, complications, and long-term results of laryngeal-tracheal injuries will be discussed with audience participation.

Program is acceptable for 5¼ hours of Category 1 credit for the AMA Physician's Recognition Award.

PATHOLOGY

GEORGIA ASSOCIATION OF PATHOLOGISTS
ATLANTA SOCIETY OF PATHOLOGISTS

Program Chairmen
FLOYD JAMES, M.D., Dalton
ALEX T. PARKINSON, M.D., Atlanta

SATURDAY, NOVEMBER 21, 9:00-5:00 P.M.

Presiding
FLOYD JAMES, M.D., President
Georgia Association of Pathologists

9:00-9:30

CLINICAL APPLICATION OF LABORATORY TESTS FOR MONITORING THE HIGH RISK PREGNANT PATIENT

JAMES H. JENKINS, M.D.
Assistant Professor of Gynecology and Obstetrics
Emory University School of Medicine
Assistant Director of Maternal and Infant Care Project
Grady Memorial Hospital
Atlanta

9:30-10:00

CLINICAL APPLICATIONS OF THE PULMONARY PROFILE AND OTHER LABORATORY INDICATORS OF MATURITY

WILLIAM P. KANTO, JR., M.D.
Associate Professor, Department of Pediatrics
Division of Neonatal/Perinatal Medicine
Emory University School of Medicine
Newborn Medicine-Physician Coordinator
(Outreach and Neonatal Transport)
Grady Memorial Hospital
Atlanta

10:00-10:30

LABORATORY DIAGNOSIS OF PREGNANCY, NEW METHODOLOGY AND ITS CLINICAL APPLICATION

DAVID H. VROON, M.D.
Associate Professor of Pathology and
Laboratory Medicine
Emory University School of Medicine
Director of Clinical Laboratories
Grady Memorial Hospital
Atlanta

10:30-10:45 — BREAK

10:45-12:15

DIAGNOSIS AND MANAGEMENT OF SECONDARY AMENORRHEA — PART I

JAMES D. MADDEN, M.D.
Clinical Associate Professor of Obstetrics and Gynecology
University of Texas
Southwestern Medical School
Dallas, Texas

Presiding
ALEX T. PARKINSON, M.D., President
Atlanta Society of Pathologists

2:30-3:00

LABORATORY METHODS APPLICABLE TO MONITORING AND MANAGING THE PREGNANT PATIENT — ESTRIOL, L/S RATIO AND OTHER PROCEDURES

EDWIN DALE, Ph.D.
Associate Professor of Gynecology and Obstetrics
Emory University School of Medicine
Director, McCard-Cross Laboratory
of Reproductive Physiology
Grady Memorial Hospital
Atlanta

DAVID H. VROON, M.D.
Atlanta

3:00-4:00

DIAGNOSIS AND MANAGEMENT OF SECONDARY AMENORRHEA — PART II

JAMES D. MADDEN, M.D.
Dallas, Texas

4:00-4:15 — BREAK

4:15-5:00

PANEL DISCUSSION WITH AUDIENCE PARTICIPATION

Moderator
DAVID H. VROON, M.D., Atlanto
Panel
JAMES H. JENKINS, M.D. Atlanto
WILLIAM P. KANTO, JR., M.D. Atlanta
EDWIN P. DALE, Ph.D. Atlanto
JAMES D. MADDEN, M.D. Dallos, Texos

6:30 RECEPTION

GEORGIA ASSOCIATION OF PATHOLOGISTS

ATLANTA SOCIETY OF PATHOLOGISTS

Sponsored by Pathologists Services, P.A.

SUNDAY, NOVEMBER 22, 9:00-5:00 P.M.

PATHOLOGY OF OBSTETRICS AND GYNECOLOGY
ANNUAL SLIDE SEMINAR
ATLANTA SOCIETY OF PATHOLOGISTS

Speaker
FRANK VELLIOS, M.D.
Professor and Director of Anotomic Pathalogy, Emory University School of Medicine, Atlonta

A breok is scheduled from 10:30-10:45, and lunch is scheduled from 12:30-2:00. The rest of the doy will be taken up by Dr. Vellios' presentotion.

Progrom is occeptoble for 11½ hours of Cotegory 1 credit for the AMA Physician's Recognition Aword.

PLASTIC SURGERY

GEORGIA SOCIETY OF PLASTIC SURGEONS

Program Chairman
WILLIAM W. BLACKBURN, II, M.D., Atlonto

Guest Speaker
PHILIP G. ARNOLD, M.D., Mayo Clinic
Rochester, Minnesota

SATURDAY, NOVEMBER 21, 9:00-11:30 A.M.

Presiding
WILLIAM W. BLACKBURN, II, M.D., Atlanta

9:00-10:00 — INTRA- AND EXTRA-THORACIC RECONSTRUCTION PROBLEMS AND INTERDISCIPLINARY SOLUTIONS

PHILIP G. ARNOLD, M.D.
Rochester, Minnesata

10:00-10:30 — BREAK

10:30-11:30

RECONSTRUCTION OF THE ABDOMINAL WALL

PHILIP G. ARNOLD, M.D.
Rachester, Minnesata

Pragram is occeptoble for 2 hours of Category 1 credit for the AMA Physicion's Recagnition Award.

PSYCHIATRY

GEORGIA PSYCHIATRIC ASSOCIATION

Program Chairman
MICHAEL A. HABERMAN, M.D., Atlonta

Guest Speaker
MARK S. GOLD, M.D., Fair Oaks Haspital, Summit, New Jersey

SATURDAY, NOVEMBER 21, 9:00-5:00 P.M.

Presiding
MICHAEL A. HABERMAN, M.D, Clinical Assistant Professor of Psychiatry, Emary University School of Medicine, Atlanta; Medicol Director, Department af Psychiatry, West Paces Ferry Hospital, Atlonto; President, Atlanta Hypnasis Society

9:00-11:00

ADVANCES IN NEUROPSYCHIATRY

MARK S. GOLD, M.D.
Summit, New Jersey

Research has volidated neuroendocrine disturbances in primary affective disarders. The dexamethosone suppression test is in common clinical usage in the diagnasis and manogement af depressian. Dr. Gald is actively researching the use of the TRH-TSH/GH test in the diagnasis af depression. In the first section of his presentation, he will review these and ather aspects af depression testing.

In the second section, Dr. Gold will present his research on the use of Clonidine in narcatic withdrawal. This antihypertensive drug has naradrenergic action and has been shown to be effective in withdrawing narcotic addicts. It is also quite beneficial for the methadane addict.

In the third section, Dr. Gold will give a talk an the *Recent Advances in Psychiatric Research* and will discuss: brain areas which may be etiologic in panic states; the endorphin system and its role in psychiatric illness; and neuroendocrine effects on different brain receptar sites.

11:00-11:15 — BREAK

11:15-12:15

PLASMA TRICYCLIC ANTIDEPRESSANT LEVELS: CURRENT STATUS

RONALD BLOODWORTH, M.D.
Clinical Director
Psychiatric Institute of Atlanta

MICHAEL A. HABERMAN, M.D.
Atlanta

ROBERT M. KOLODNER, M.D.
Assistant Professor of Psychiatry
Emory University School of Medicine
Atlanta

Guidelines for monitaring plasma levels of tricyclic antidepressants will be presented and the clinical usefulness of this procedure reviewed.

HYPNOSIS IN MEDICINE

Presiding
MICHAEL A. HABERMAN, M.D., Atlanta

Presentors
SHELDON COHEN, M.D.
Editor, *American Journal of Clinical Hypnosis*
Past President, Atlanta Hypnosis Society
ROSS GRUMET, M.D.
Director of Psychiatric Services, Geargia Baptist Medical Center
Past President, Atlanta Hypnosis Society
MICHAEL A. HABERMAN, M.D., Atlanta
WILLIAM WIELAND, M.D.
Director of Education, Ridgeview Institute, Atlanta

2:00-2:20

INTRODUCTION TO THE MODERN RESURGENCE OF HYPNOSIS THROUGH THE HISTORIAN'S EYE

2:20-2:45

MYTHS AND PITFALLS: THEORIES ABOUT THE NATURE OF HYPNOTIC TRANCE

2:45-3:30

HYPNOSIS AND PAIN CONTROL

3:20-3:45 — BREAK

3:45-4:15

HYPNOSIS AND HABIT CONTROL

4:15-4:45

HYPNOSIS AND PSYCHOTHERAPY

4:45-5:00 — QUESTIONS

A general overview of the field of hypnosis will be presented. Special emphasis will be placed on current applications of hypnosis to various medical specialties and family practice.

Program is acceptable far 5¾ hours of Category 1 credit for the AMA Physician's Recognition Award.

PUBLIC HEALTH

GEORGIA CHAPTER, AMERICAN ASSOCIATION OF PUBLIC HEALTH PHYSICIANS

Program Chairman
MELODY A. STANCIL, M.D., LaGrange

Guest Speaker
REAR ADMIRAL FREEMAN H. CARY, M.C., U.S.N.R., F.A.C.P., F.A.C.C.
Attending Physician to the Congress of the United States, Woshington, D.C.

FRIDAY, NOVEMBER 20, 9:30-11:00 A.M.

Presiding
MELODY A. STANCIL, M.D., District Health Director, District Four Health Services, LaGrange

9:30-11:00

HEALTH CARE IN THE PEOPLE'S REPUBLIC OF CHINA

REAR ADM. FREEMAN H. CARY, M.C., U.S.N.R.
Washington, D.C.

Program is acceptable far 1½ hours of Category 1 credit for the AMA Physician's Recagnitian Award.

SURGERY

GEORGIA CHAPTER, AMERICAN COLLEGE OF SURGEONS

Program Chairman
EUGENE D. DAVIDSON, M.D., Atlanta

Guest Speakers
JEROME J. DECOSSE, M.D., Chief of Surgery, Memorial Sloan-Kettering Institute; Professor of Surgery, Cornell University School of Medicine, New York, New York

THOMAS R. DEMEESTER, M.D., Professar and Chief of Thoracic and Cardiovoscular Surgery, University of Chicoga School of Medicine, Chicago, Illinois

FRIDAY, NOVEMBER 20, 9:00-5:15 P.M.

Presiding
LaMAR S. McGINNIS, M.D., Secretory, Georgia Chopter, Americon College of Surgeons, Atlonta

9:00-9:10

ANALYSIS OF THIRTY-THREE CASES OF TRANSITIONAL CELL CARCINOMA OF THE UPPER URINARY TRACT

THOMAS H. SCHOBORG, M.D.
DELORES McCORD
A. P. RODRIGUEZ, M.D.
CHARLES SCOTT, JR., M.D.
Georgia Baptist Medicol Center
Atlonto

9:10-9:15 — DISCUSSION

9:15-9:25

BREAST RECONSTRUCTION FOLLOWING MASTECTOMY

CARL R. HARTRAMPF, JR., M.D.
Atlonto

9:25-9:30 — DISCUSSION

9:30-9:40

INTRAPOPLITEAL ARTERIAL RECONSTRUCTION

ALLAN R. KOORNICK, M.D.
Atlanta

9:40-9:45 — DISCUSSION

9:45-9:55
EXTENT OF DISEASE VS. EXTENT OF RESECTION IN COLONIC DIVERTICULAR DISEASE

IRWIN R. BERMAN, M.D.
Brunswick

9:55-10:00 — DISCUSSION

10:00-10:45

IS THERE A PLACE FOR RADICAL MASTECTOMY IN THE TREATMENT OF BREAST CANCER?

JEROME R. DECOSSE, M.D.
New York, New York

10:45-11:00 — BREAK

11:00-11:30

CURRENT STATUS OF LARYNGEAL CANCER

EDWARD S. PORUBSKY, M.D.
Professor Surgery-Otoloryngology
Medical College of Georgio School of Medicine
Augusta

11:30-12:00

CURRENT STATUS OF TUMOR MARKERS IN CANCER SURVEILLANCE

MARTIN YORK, M.D.
Associate Professor of Medicine
Emory University School of Medicine
Atlonta

12:00-2:00 LUNCHEON
GEORGIA CHAPTER, AMERICAN COLLEGE OF SURGEONS

Presiding
JOHN I. DICKINSON, M.D., President, Geargia Chapter, American College af Surgeons, Rome

2:00-2:45

MULTIMODALITY THERAPY FOR STAGE III CARCINOMA OF THE LUNG

THOMAS R. DEMEESTER, M.D.
Chicogo, Illinois

2:45-3:30

SURGICAL TREATMENT OF PRIMARY HYPERPARATHYROIDISM

C. WILLIAM McGARITY, M.D.
Professar of Surgery
Emory University School of Medicine
Atlanta

3:30-3:45 — BREAK

3:45-4:15

CARCINOMA OF THE ORAL CAVITY

EDWARD S. PORUBSKY, M.D.
Augusta

4:15-4:45

MANAGEMENT OF FAMILIAL LARGE BOWEL CANCER

JEROME J. DECOSSE, M.D.
New York, New York

4:45-5:15

PANEL DISCUSSION ON TUMOR PROBLEMS

Moderator
JOHN I. DICKINSON, M.D., Rome

Panel
JEROME J. DECOSSE, M.D., New York, New Yark
THOMAS R. DEMEESTER, M.D., Chicogo, Illinois
EDWARD S. PORUBSKY, M.D., Augusto

SATURDAY, NOVEMBER 21, 9:00-12:00 NOON

A JOINT MEETING OF THE GEORGIA CHAPTER, AMERICAN COLLEGE OF SURGEONS GEORGIA GASTROENTEROLOGIC SOCIETY

ESOPHAGEAL REFLUX SYMPOSIUM

Presiding
EUGENE D. DAVIDSON, M.D., Atlanta

9:00-10:00

MEDICAL ASPECTS OF ESOPHAGEAL REFLUX

DONALD CASTELL, M.D.
Professor of Medicine
Uniform Service School of Medicine
Bethesdo, Marylond

10:00-10:30

PREOPERATIVE EVALUATION OF PATIENTS FOR ESOPHAGEAL SURGERY

THOMAS R. DEMEESTER, M.D.
Chicogo, Illinois

10:30-10:45 — BREAK

10:45-11:15

RESULTS OF ANTIREFLUX SURGERY

THOMAS R. DEMEESTER, M.D.
Chicago, Illinois

11:15-12:00

PANEL DISCUSSION ON REFLUX ESOPHAGITIS

Moderator
EUGENE D. DAVIDSON, M.D., Atlonto

Panel
TALMADGE A. BOWDEN, JR., M.D., Assistant Professor of Surgery, Medicol College of Georgio School of Medicine, Augusta
DONALD CASTELL, M.D., Bethesdo, Morylond
THOMAS R. DEMEESTER, M.D., Chicogo, Illinois
THEODORE HERSH, M.D., Professor of Medicine, Section of Gostroenterology, Emory University School of Medicine, Atlonto

Progrom is occeptoble for 8½ hours of Cotegory 1 credit for the AMA Physicion's Recognition Aword.

REGISTRATION FORM

1981 MAG Scientific Assembly

NOVEMBER 20-22, 1981
OMNI INTERNATIONAL HOTEL, ATLANTA

Name _____ (Last) _____ (First) _____ (MI)

Office Address _____

City/State _____ Zip Code _____

IMPORTANT! PLEASE INDICATE THE PROGRAM FOR WHICH YOU WISH TO REGISTER (check one only):

- ☐ Allergy/Pediatrics
- ☐ Chest Disease
- ☐ Emergency Medicine
- ☐ Gastroenterology
- ☐ Internal Medicine
- ☐ Neurology
- ☐ Neurosurgery
- ☐ Ophthalmology
- ☐ Orthopedic Surgery
- ☐ Otolaryngology
- ☐ Pathology
- ☐ Plastic Surgery
- ☐ Psychiatry
- ☐ Public Health
- ☐ Surgery

"ENHANCING YOUR FINANCIAL SKILLS"
Seminar for physicians and spouses
THURSDAY, NOVEMBER 19
(details in program)
MAG MEMBER: $90 NON-MEMBER: $130
registration fee includes spouse (Add the appropriate fee to your Scientific Assembly registration)
ATTENDANCE LIMITED TO 100 PERSONS

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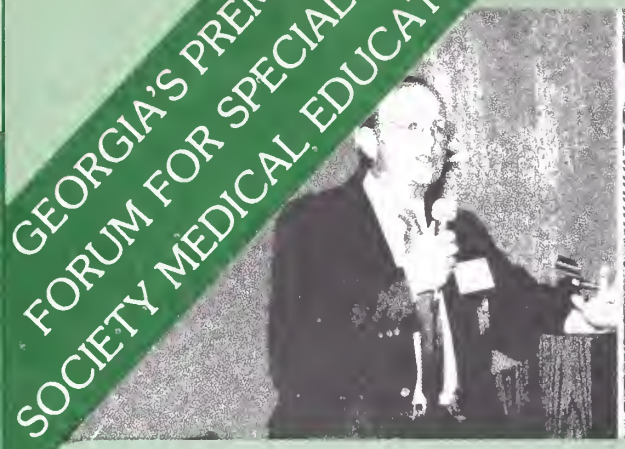
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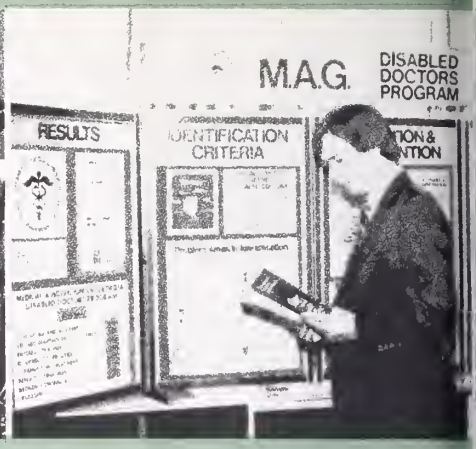
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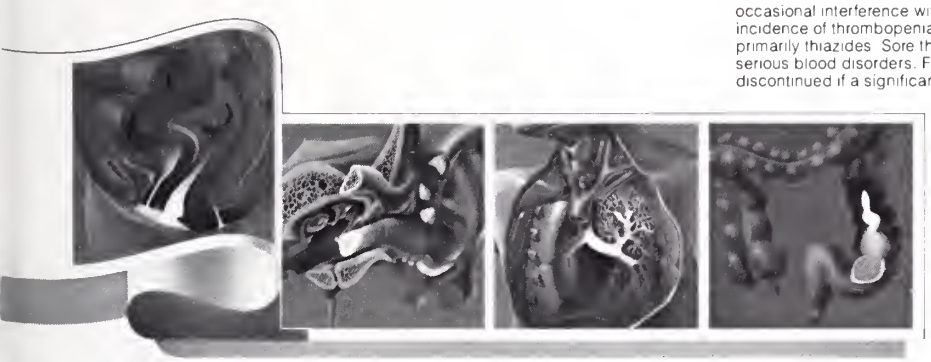
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Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
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in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General.* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy. Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults. Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children. Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment. Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage. 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500, Tel-E-Dose® packages of 100, Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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160 mg trimethoprim and 800 mg sulfamethoxazole
DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

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*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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Rural Practice Opportunities for New Physicians.

A Priority of the MAG.

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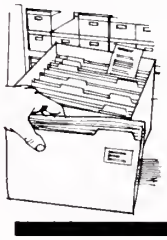
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THE COVER

MAG's innovative Pre-Practice Seminar/Physician Recruitment Conference (Medical Fair) serves both medical residents and rural communities throughout the state by providing them with the opportunity to discuss practice locations. This conference is another example of how the MAG is involved in and committed to help provide quality medical care throughout Georgia. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ℞, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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MEDICAL MEETING CALENDAR

SEPTEMBER

17-19—*Hilton Head, SC;* **Third Annual Frontiers in Nutrition Conference.** Category 1 credit. Contact Sandra J. Edwards, Ph.D., Dept. of Med., MCG Sch. of Med., Augusta 30912.

23-25—*Savannah:* **Neonatology.** Category 1 credit. Contact Div. of Cont. Educ., MCG Sch. of Med., Augusta 30912. PH:404/828-3967.

25-26—*Hilton Head, SC;* **Myofascial Pain Syndromes.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Medicine, 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

25-27—*Savannah;* **33rd Annual Meeting and Scientific Sessions, American Heart Association, Georgia Affiliate.** Category 1 credit. Contact Sheree Gubernik, AHA-GA, 2581 Piedmont Ave., NE, Atlanta 30324. PH:404/261-2260.

OCTOBER

1-2—*Atlanta;* **Breast Cancer Symposium — Concepts 1981.** Category 1 credit. Contact Dept. of CME, Ga. Baptist Med. — Ctr. 3 West, 300 Boulevard NE, Atlanta 30312. PH:404/653-4600.

1-3—*Charleston, SC;* **Occupational Medicine.** Category 1 credit. Contact Div. of Cont. Ed., MCG Sch. of Med., Augusta 30912. PH:404/828-3967.

2-3—*Thomasville;* **Risk Management Seminar — Second District Medical Society.** Category 1 credit. Contact L. B. Storey, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or 800-282-0224.

5-7—*Macon;* **Perspectives on Rural Health and Medical Education.** Contact Barbara Lowrey, Office of Community Programs, Mercer Univ. Sch. of Med., Macon 31207. PH:912/744-2600.

8-9—*Macon;* **What's New in Obstetrics and Gynecology.** AMA Category 1 credit, AAFP prescribed credit. Contact John A. Souma, M.D., Med. Ctr. of Central Ga., P.O. Box 6000. Macon 31208. PH:912/744-1692.

8-11—*Hilton Head, SC;* **Diagnosis and Treatment of Injuries Resulting from Fitness and Recreational Sports Programs.** Category 1 credit. Contact Lesley M. Hudson, Shepherd Spinal Ctr., 3200 Howell Mill Rd., NW., Atlanta 30327. PH:404/351-0351, X109.

9-10—*Atlanta;* **Complications of Angiography.** Category 1 credit. Contact Peter J. Sones, M.D., Section of Radiology, Emory Univ. Clinic, 1365 Clifton Rd., NE, Atlanta 30322.

11-14—*Unicoi State Park;* **Psychiatric Institute on Group Behavior and Group Leadership.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Medicine, 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

14-15—*Atlanta;* **Georgia Chapter, American Academy of Pediatrics.** Category 1 credit. Contact David L. Morgan, M.D., 1901 Century Blvd., NE, Ste. 20, Atlanta 30345. PH:404/633-4595.

14-17—*Hilton Head, SC;* **Third Annual Hilton Head Symposium on the "Clinical Management of Diabetes and Endocrine Disorders,"** Category 1 credit. Contact Edwin D. Bransome, Jr., M.D., MCG Sch. of Med., Augusta 30912. PH:404/828-3445.

15-16—*Atlanta;* **What Is Current in Writing and Publishing a Medical Journal Article.** Sponsored by the Amer. Med. Writers Assoc. and Emory Univ. Sch. of Med. 9 hrs. Category 1 credit. Contact William A. Check, Ph.D., 2765 Townley Cir., Atlanta 30340. Ph:404/491-7091.

15-18—*Sea Island;* **1981 Annual Meeting of the Georgia Orthopedic Society.** Category 1 credit. Contact James E. Averett, Jr., M.D., 105 Collier Rd., Ste. 2010, Atlanta 30309. PH:404/355-1798.

16-18—*Callaway Gardens;* **Georgia Gastroenterologic Society Annual Meeting.** Category 1 credit. Contact Jack M. Averett, Jr., M.D., 2300 Manchester Expressway, Columbus 31904. PH:404/323-3671.

22-24—*Augusta;* **Medical Fair and Pre-Practice Seminar — A Physicians' and Dentists' Recruitment Program for Rural Areas in Georgia.** Contact Bert Franco, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or (in Ga.) 800/282-0224.

23-24—*Atlanta;* **GU Radiology.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Medicine, 1440 Clifton Rd., NE, Atlanta 30322. PH:404/5696.

23-25—*Atlanta;* **Cardiac Ischemia & Arrhythmias — Current Concepts for Diagnosis and Treatment.** Contact International Medical Education Corp., 64 Inverness Dr., East Englewood, CO 80112. PH:800/525-8646.

24-25—*Atlanta;* **American College of Utilization Review Physicians.** Contact Betty Hammans, 1108 N. Second St., Harrisburg, PA, 17102. PH:717/607-4428.

29-Nov. 1—*Kiawah Island, SC;* **Primary Care of Hand Injuries.** Contact Gail M. Gorman, American Society of Surgery of the Hand, 3 Parker Pl., Ste 132, 2600 S. Parker Rd., Aurora, CO 80014. PH:303/755-4588.

30-31—*Hilton Head, SC;* **Allergy and Immunology for the Clinician.** Category 1 credit. Contact A. J. Kimber, American Academy of Allergy, 611 E. Wells St., Milwaukee, WI 53202. PH:414/272-6071.

NOVEMBER

1-5—*Atlanta;* **American Academy & Association of Ophthalmology.** Contact Faye Anderson, Amer. Acad. Ophthalmology, 1833 Fillmore, San Francisco, CA 94120. PH:415/921-4700.

4-6—*Atlanta;* **Annual Meeting, Ga. Academy of Family Physicians.** Contact Camille Day, GAFP, Ste 205, 11 Corporate Sq., Atlanta 30329. PH:404/321-7445.

9-10—*Atlanta;* **Arthroscopy Techniques Course.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Medicine, 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

10—*Decatur;* **Critical Care Medicine.** Category 1 credit. Contact John A. Harrel, Jr., M.D., Dir. Med. Affairs, DeKalb Gen. Hosp., 2701 N. Decatur Rd., Decatur 30033. PH:404/292-4444, x5215.

12—*Atlanta;* **Symposium on Epilepsy.** Category 1 credit. Contact John Hinkle, Ga. Chapter, Epilepsy Foundation of Amer., 57 Forsyth St., NW, Ste. 1005, Atlanta 30303. PH:404/523-4197.

13—*Callaway Gardens;* **A Day on Rheumatic Disease.** Category 1 credit. Contact Jonathan P. Vansant, M.D., The Medical Ctr., Columbus 31904. PH:404/324-4711, x6573.

19—*Atlanta;* **9th Biennial MAG Conference on Medical Education: Who Will Care for the Patient?** Contact Stephen Davis, Dir. of Ed., MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535.

Incidental Intelligence . . .

HMO — Hit by the Budget Ax

The Reagan Administration has sent Congress legislation phasing out federal financial support for Health Maintenance Organizations (HMOs). The bill will "help ensure that health maintenance organizations and other modes of health delivery face a fair test in the marketplace," said Richard Schweiker, Secretary of the Health and Human Services (HHS) Department. He said the federal aid has given HMOs "an advantage over other forms of health delivery, and that this bill would eliminate certain federal restrictions on HMOs "that have inhibited their ability to compete successfully." The bill authorizes appropriations of $1 million for the next 3 fiscal years for HMO training and technical assistance and $35 million yearly for the HMO loan fund.

No federal assistance would be provided for starting up any new HMO. Other provisions of the bill would:

- Remove mental health and substance abuse services from the list of required services and make them optional.
- Repeal current limitations as to HMOs contracting with individual physicians for the provision of health services and clarify what percentage of services could be contracted by an HMO.

Earlier, the AMA had told the Congress that now is the time to end federal aid for HMOs. "What was envisioned in 1973 as a justifiable manipulation of market-place forces to foster the development of HMOs is now perceived as undue interference with matters of choice best left to the consumer," the AMA said in a statement to the House Commerce Subcommittee on Health.

The growth of any one form of health care delivery — prepaid plans, fee-for-service, etc. — should not be determined by federal subsidies, by preferential treatment under law, or by federally-financed advertising campaigns. Rather, in the opinion of the AMA, the decision should be made by popular choice in a free competitive system. "Government neutrality is essential to maintain a pluralistic system for consumer choice."

The HMO act has now served its purpose, according to the AMA, which is supporting the Administration's plan to withdraw funds for starting up new HMOs and to terminate funds for other HMOs after completion of the current funding cycle. Experience has shown that the HMO program "has not been entirely successful in developing qualified HMOs, and the fact remains that the vast majority of individuals who are enrolled in prepaid group practices — HMOs — are enrolled in plans that did not receive federal assistance."

The AMA pointed out that the HMO loan fund, which has provided $128 million to HMOs since 1973, is now in a deficit position, because 11 HMOs have gone bankrupt. Another 38 are experiencing financial problems, raising the total to more than one-fifth of federally-qualified HMOs that are in financial trouble.

Lupus Treatment Center Opened — The First of Its Kind in the Southeast

The first lupus treatment center in the Southeast opened at West Paces Ferry Hospital in Atlanta in May, 1981. It serves as a treatment resource to 35,000 lupus patients in Georgia and the surrounding states. It was named after Jacquelyn McClure who died of the disease.

The Lupus Treatment Center is open 1 day a month, with several physicians acting as resources for other physicians with lupus patients and for lupus patients who do not have access to a specialist with knowledge of the treatment for the disease. The physicians involved in the Center are experienced in such treatment. A representative from West Paces Ferry Hospital Patient Care Division assists at the Center, with a member of the Atlanta Lupus Foundation serving in a support capacity to talk with a patient about the disease, its treatment, etc. For further information, contact the hospital at 3200 Howell Mill Rd., Atlanta, GA 30327. Ph: 404-351-0351, ext. 1208 or 1100.

Patient Package Inserts — The Program Is Questioned

The Food and Drug Administration's pilot program for patient package inserts (PPIs) for drugs has been slowed and may be halted. The new FDA Commissioner, Arthur Hayes, M.D., "will conduct a complete review of ways to provide health and safety information to consumers about drugs," said HHS Secretary Richard Schweiker. The May 25 and July 2 effective dates of the pilot program will be postponed.

The FDA review will consider alternative means of providing needed information to patients about drugs, the cost effectiveness of the PPI approach, and whether the pilot program is appropriately constructed to produce reliable information on the effectiveness of PPIs.

The program requires inserts for cimetidine, chlorfibrate, propoxyphene, ampicillin, and phenytoin. Current PPIs for oral contraceptives, estrogens, and progestins are not affected.

AMWA and Emory University Sponsor Special Workshop on Writing and Publishing Medical Articles

On Oct. 15 and 16, 1981, the Southeast Chapter of the American Medical Writers Association (AMWA) and Emory University School of Medicine are sponsoring a workshop on writing and publishing medical journal articles. The workshop will be held at the Woodruff Medical Building on the Emory campus. Arnold S. Relman, M.D., editor of the *New England Journal of Medicine* (N Engl J Med) will speak on the quality of evidence in scientific reports.

Other sessions to be conducted will focus on the following topics: (1) The Organization of Scientific Articles (Stephen Lock, M.D., editor, *British Medical Journal* [Br Med J]); (2) Clarity and Exactness in Writing (Jane Smith, Br Med J); (3) Statistical Charts, Graphs, and Tables (William Dyal, Centers for Disease Control [CDC]); (4) Selecting Key Words and Conducting Computer Searches (Claudia Lewis, Louise Lewis [CDC]); and (5) Writing a Case History.

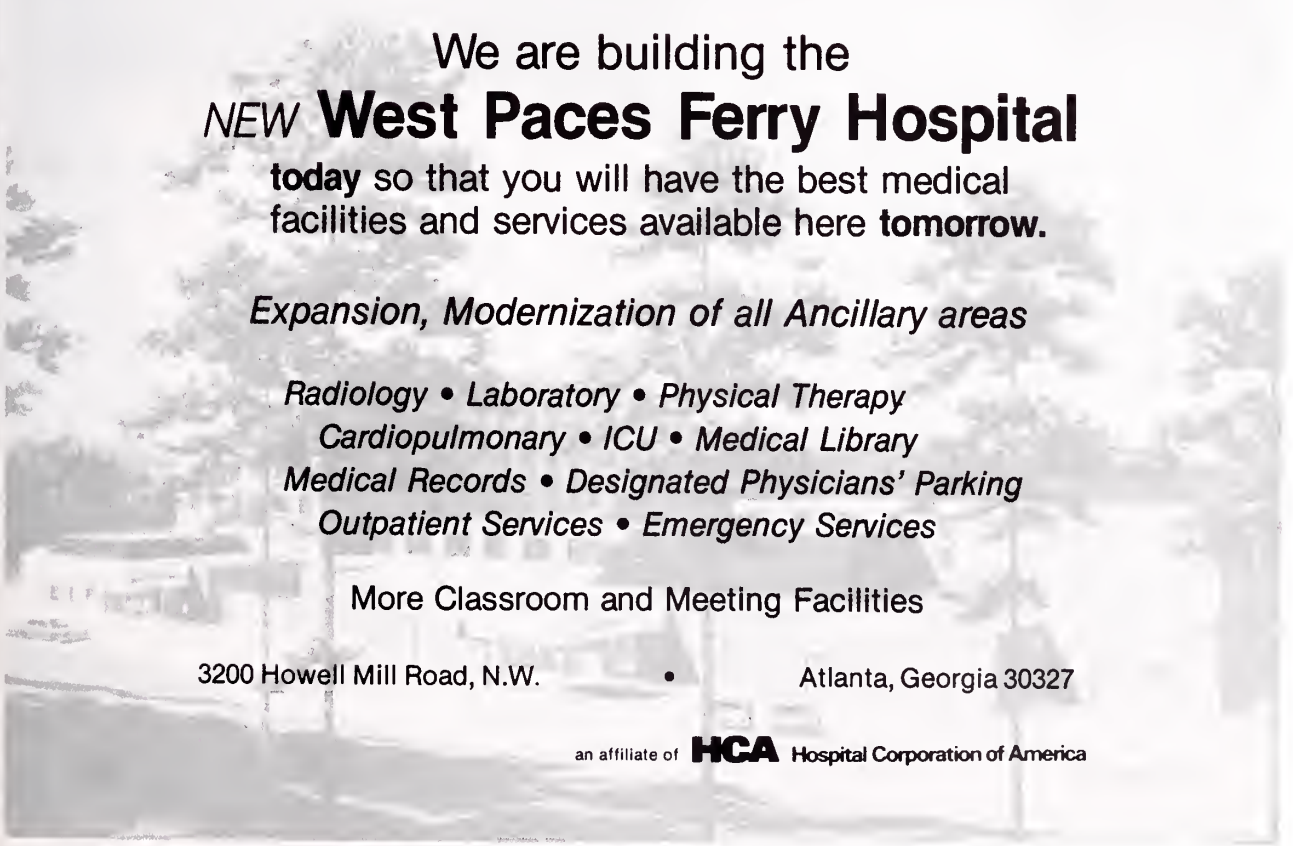
Conference participants are invited to a panel discussion at the CDC from 1:30-3:30 on Oct. 15. The topic will be, "What Authors and Editors Expect of Each Other." Panel participants will include the editors of the following journals: *Annals of Internal Medicine* (Edward Huth, M.D.), Br Med J, N Engl J Med, and JAMA (Therese Southgate, M.D.). Program is acceptable for 9 hours of Category 1 credit. Contact Wm. A. Check, Ph.D., 2765 Townley Cir., Atlanta 30340. Ph: 404-491-7091.

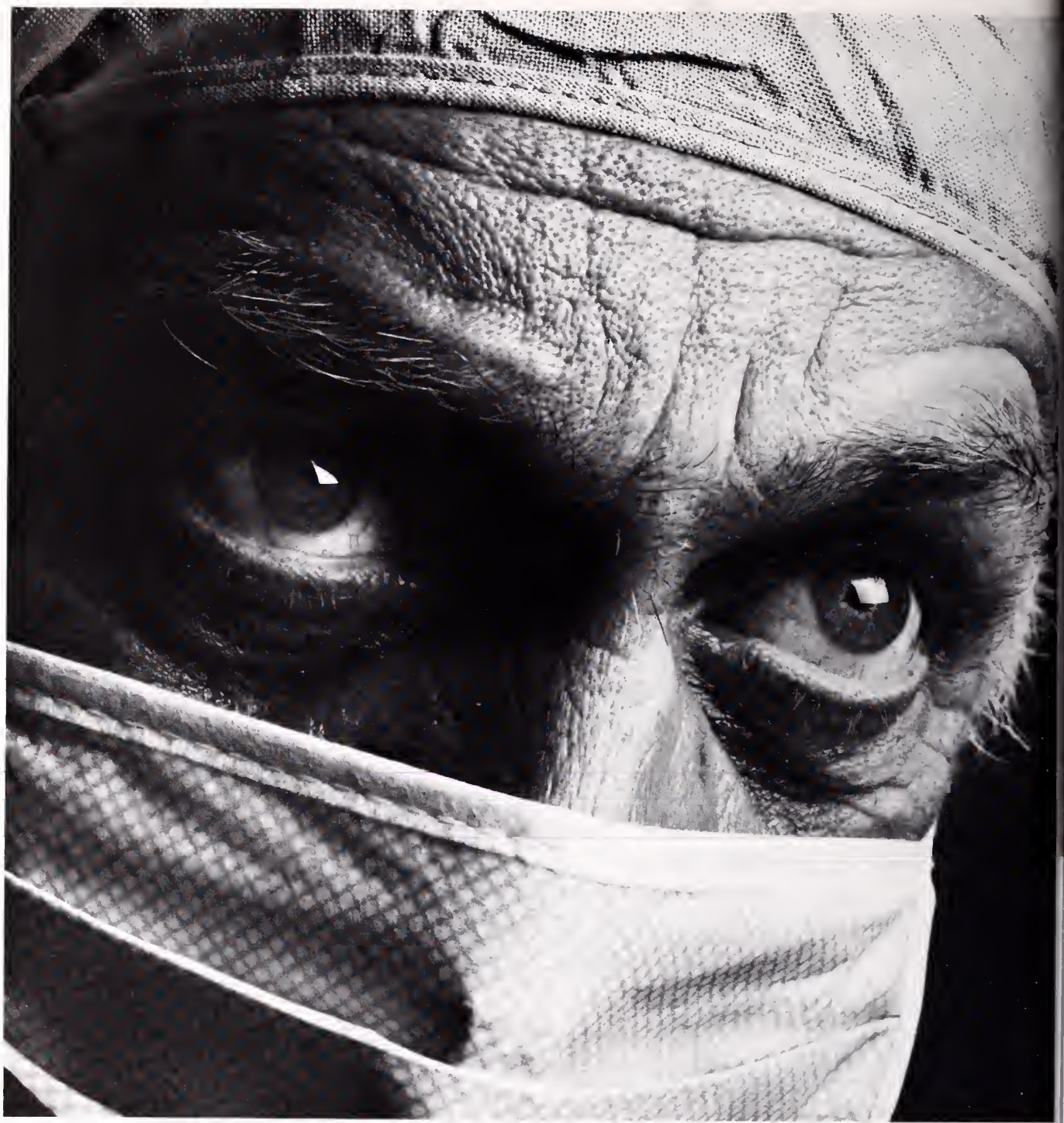
Three Important Health Regulations To Be Studied for Possible Modification

The Administration's Task Force on Regulatory Relief has singled out three health regulations for priority review as to whether modification is necessary to make them less burdensome. They are:

- New Drug Applications — Delays in the existing process of approving new drugs by the Food and Drug Administration "justifies a thorough review."
- Medicaid Regulations — States contend that these regs hamper their ability to provide services to needy people at reasonable funding levels, according to the Task Force.
- Health Care Institution Certification and Surveys — Hospitals, nursing homes, and other institutional providers "are subject to myriad, frequent, and duplicative surveys and reviews."

Vice President George Bush, Chairman of the Task Force, urged the public to notify his agency of rules and regulations that people find onerous and unnecessary.





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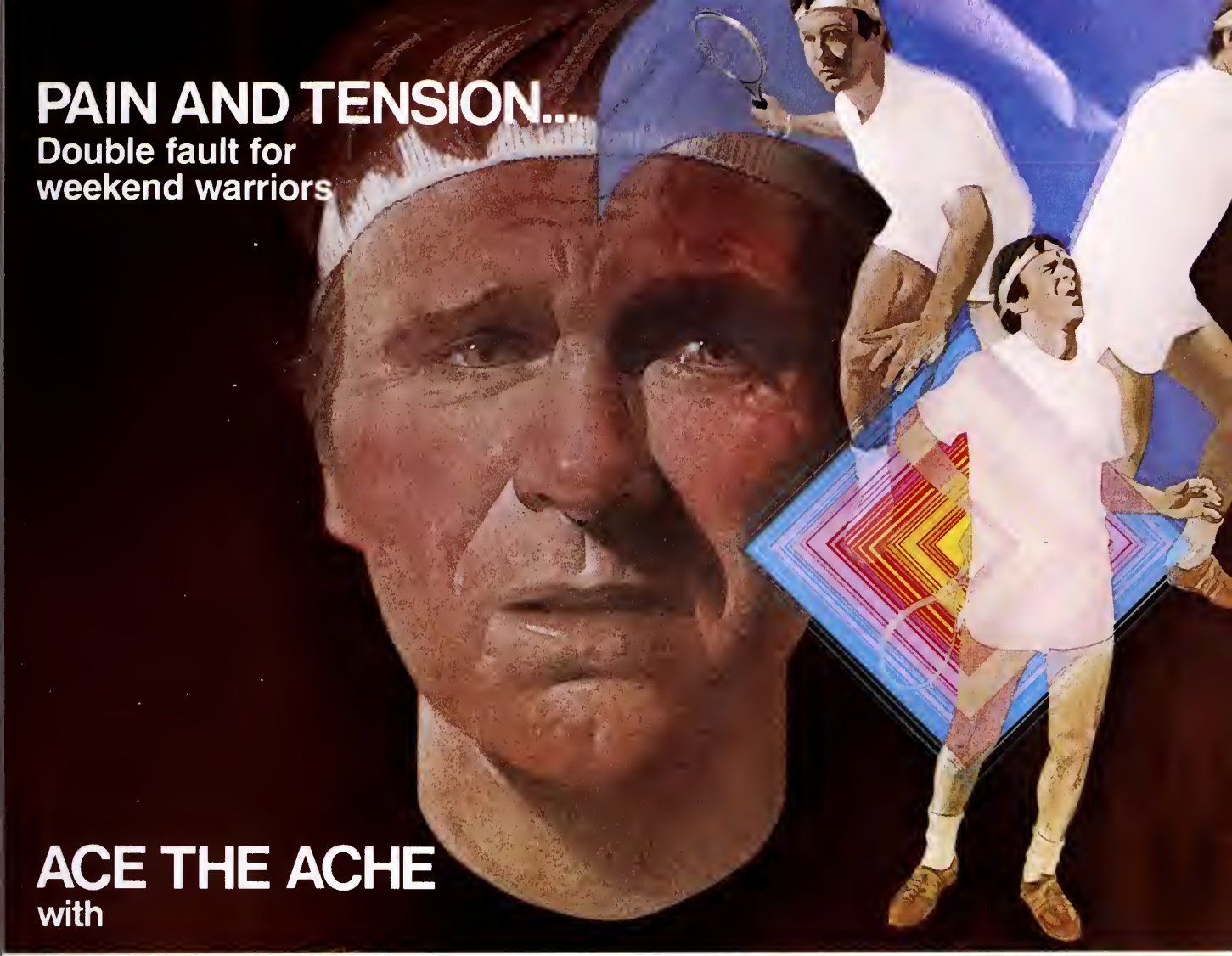
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Equagesic®(IV)

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbraviated Summary

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.
Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazapoxide, and diazapam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.
Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.
Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.
PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.
Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.
ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.
A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.
Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.
More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.
Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.
Impairment of accommodation and visual acuity has been reported rarely.
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.
DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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for mild to moderate pain

Wygesic®(IV)

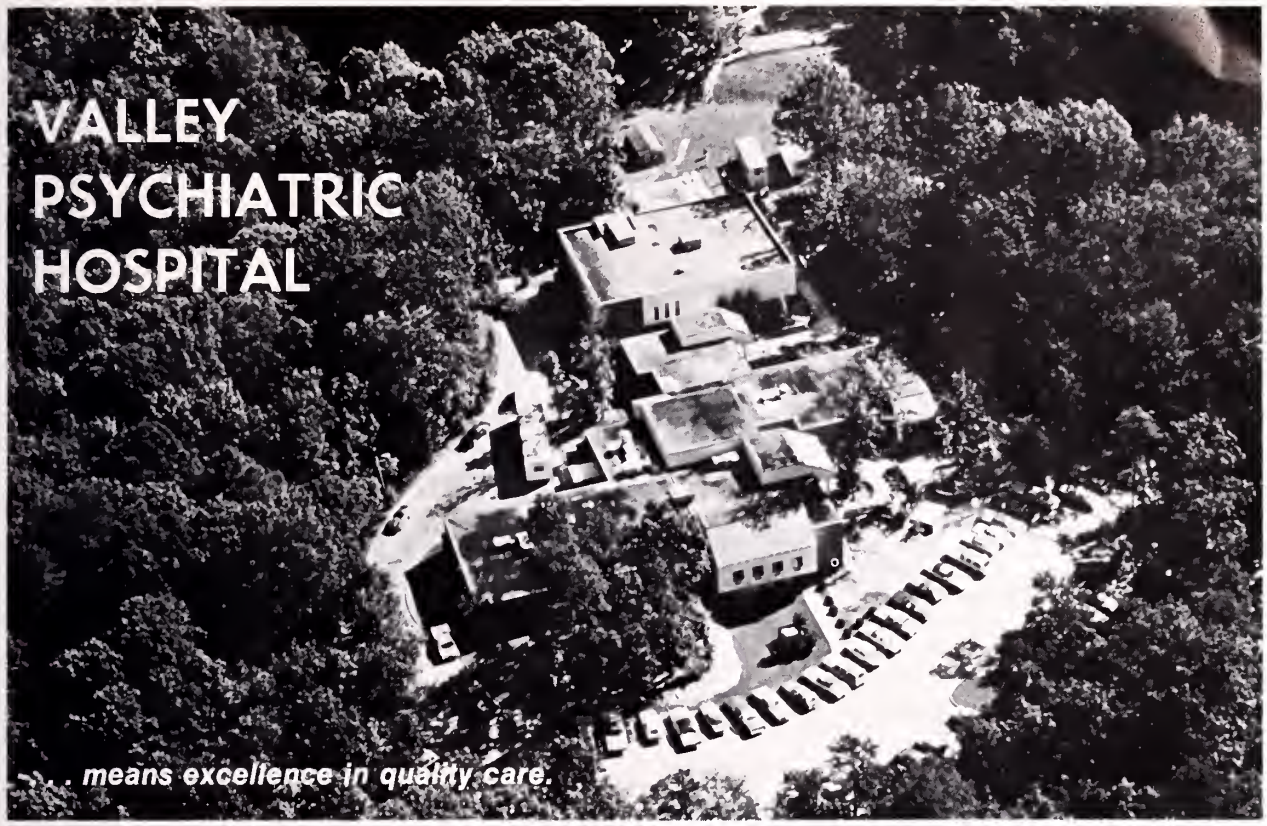
(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, lightheadedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors, and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Valley is a fully accredited private psychiatric hospital staffed by professionals with outstanding credentials in the field of mental health and emotional disorders.

The carefully coordinated team approach includes intensive individual and group psychotherapy, and expressive therapy for the patient whose condition requires evaluation and professional treatment.

Valley is a 100-bed private psychiatric hospital nestled in an 81-acre wooded area on the outskirts of Chattanooga, Tenn. Structured clinical programs include:

ADULT PSYCHIATRIC PROGRAM—Admission to the adult program at Valley involves diagnostic procedures such as complete physical examination, psychological testing, psychiatric evaluation and review of social history. Based upon results of these initial tests, the patient's attending psychiatrist together with members of the psychiatric treatment team develop a total treatment plan which may include group therapy in addition to individual therapy, occupational and recreational therapy as well as family involvement.

Weekly meetings of the treatment team are held to modify the original treatment plan based on the patient's progress while in the hospital.

CHILD AND ADOLESCENT PROGRAM—Valley maintains a child and adolescent program for youngsters undergoing specific difficulties in growth and development. This program provides individual as well as group therapy and includes activities in art, sports and field trips of special interest to this age group.

An active school experience is part of this program. Individual lesson plans, administered by special education teachers and worked out with the children's own school district educators, keep them from falling behind peers in their own community school. Because the student is allowed to move at his own pace in an individualized program, he develops confidence and self-discipline.

The Valley program regards adolescence as a psychological growth process—not a disease—so that time, skill and experience are critical ingredients of the treatment.

SUBSTANCE ABUSE PROGRAM—This treatment team is trained and experienced in the treatment of alcoholics and other drug-dependent persons.

A number of approaches are used in the treatment of alcoholism and/or drug abuse: individual and group therapy, substance abuse counseling, lectures, communication skills training, pastoral counseling, physical and recreational therapy, the 12 Steps of Alcoholics Anonymous, Antabuse therapy, and various forms of adjunctive therapy. Whenever possible, family members are urged to become involved in the patient's treatment through out-patient family and individual counseling.

REFERRAL—Valley maintains a 24-hour, seven-day-a-week emergency referral service. Referrals are accepted from psychiatrists and other physicians, the clergy, social workers, mental health professionals, social agencies, self and family.

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Dr. G. Michael Schmits, M.D., Medical Director of the Child and Adolescent Program

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The Pre-Practice Seminar and Physician Recruitment Conference — A 4-Year Review

M. JULIAN DUTTERA, JR., M.D., *and* JERRY HUMMEL, *LaGrange,*
ADAM JABLONOWSKI *and* BERT FRANCO, *Atlanta**

In the last 4 years, the Pre-Practice Seminar and Physician Recruitment Conference has been held in Georgia to encourage second and third year primary care residents to consider practicing in rural areas. This conference, initially sponsored by the Medical Association of Georgia (MAG) and the Southeastern Institute for Community Health, Inc., of LaGrange is now also co-sponsored by the Georgia Academy of Family Physicians, the Joint Board of Family Practice, and the Georgia Hospital Association. Initial funding was provided by a grant from the Callaway Foundation, Inc., of LaGrange, to the Southeastern Institute. After 4 years' experience, it is appropriate to review the conference not only as a mechanism for attracting physicians into medically underserved areas, but also to review many other unexpected beneficial side effects which the conference has had on communities and residents who have attended.

Initial Concepts

The conference was initially conceived as two separate programs that would overlap to create a job market for physicians who were interested in practicing in medically underserved rural areas (Figure 1). The Pre-Practice Seminar was designed for residents who were considering practicing in non-urban areas. There were several underlying assumptions that affected the design of the conference. First, it was felt that residents were not sufficiently prepared by their previous training to make optimum decisions about practice locations. Second, there were several adjustment problems in the transition from medical training to starting practice. Some of these problems were unique to non-urban practice. Third, the cost of making a mistake in selecting a practice location to the physician was considerable and not yet recognized as such. The Pre-Practice Seminar was planned to take into account these assumptions.

The Physician Recruitment Conference was designed for non-urban communities which wanted to recruit a physician. Planning for the conference was also based on certain assumed problems or difficulties. First, physician recruitment is a long, complex, and expensive process. Second, many communities are not adequately prepared to recruit physicians. Third, there is no job market available to assist communities in their recruitment efforts. The Physician Recruitment Conference was thus designed to address these difficulties with the additional attraction of the job market which was created by the merger of these two conferences.

It was felt that the conference would be much more attractive if held in a resort area away from residency training programs. A well-demonstrated fact in continuing medical education is that to get more than an hour or two of a physician's time, one must conduct the program away from the practice setting. This is also true for residents. Residents

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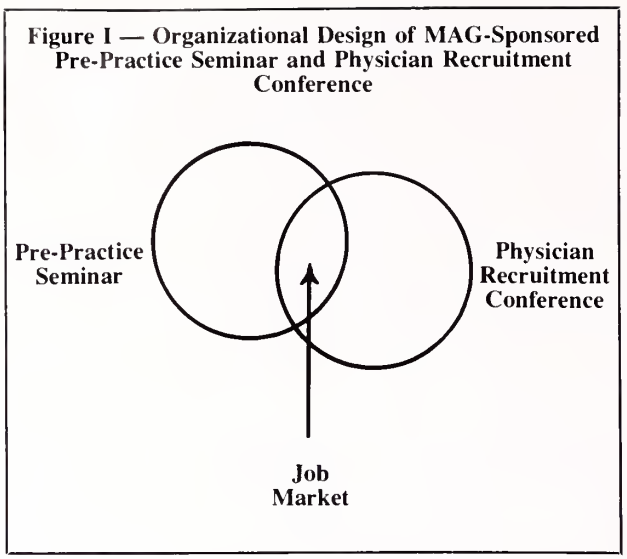


Figure I — Organizational Design of MAG-Sponsored Pre-Practice Seminar and Physician Recruitment Conference

must be completely relieved of patient care and training duties in order to fully participate in such a conference. An attractive resort setting also makes the conference attractive to the spouses of residents. Other than a registration fee of $25 for the resident and spouse and the cost of one or two meals at the 1980 conference, the expenses for the weekend were covered by the sponsoring agencies and registration fees from communities. Since the spouse is an essential part of the decision making process, and a significant factor in retention issues, residents' spouses were encouraged to attend.

The integration of the two conferences can best be appreciated by reviewing the program format and agenda of the conference completed Oct. 31 — Nov. 2, 1980, at Callaway Gardens in Pine Mountain, Georgia. The Physician Recruitment Conference began on Friday morning and was designed to assist the communities in recruiting primary care physicians. This year, representatives of 40 communities were present. The seminar for communities was conducted to orient them to the Physician Recruitment Conference itself and to provide them with information on methods and resources for physician recruitment including: interviewing and recruitment techniques; economic aspects of physician recruitment; physician recruitment from the hospital point of view; and physician recruitment from the physician's point of view. The communities were given time to set up their exhibits prior to the physicians' arrival late Friday afternoon. Between 6 and 8 p.m. on Friday, the first opportunity for the communities and physicians to meet was arranged via a welcoming reception and cocktail party held in the center of the exhibit area. This setting provided an opportunity for maximum interaction between community representatives and residents and spouses who arrived that evening. After the welcoming reception and cocktail party, most communities invited a resident and spouse to dinner and continued discussion of practice opportunities.

Breakfast on Saturday and Sunday and lunch on Saturday were served in the middle of the exhibit area to again facilitate interaction between communities, residents, and spouses.

The Pre-Practice Seminar for residents was divided into four major areas: 1) Selecting a Community, 2) Establishing a Practice, 3) Managing a Practice, and 4) Coping with Personal, Marital, and Family Problems. Within this framework, a distinguished faculty of practicing physicians and other health professionals addressed specific issues such as rural living, hospital facilities, solo practice vs. group practice, legal, financial, and insurance issues, practice management, continuing education, and personal, marital, and family problems.

A second reception and cocktail party were held on Saturday night which again provided an opportunity for interaction between community representatives and physicians. The Pre-Practice Seminar for residents was resumed on Sunday morning and adjourned at noon.

Scheduled Interviews

A new feature, added to the 1980 meeting, was the scheduled interview period. This 4-hour time slot on Saturday afternoon assured that every community would be visited by several residents. The schedule for the interviews was arranged by the staff of the Joint Board of Family Practice for all residents and Georgia communities.

The matching of the residents with communities was based on questionnaires which had been completed by each group prior to the conference. The MAG received the questionnaires for entering the data into its computer with the resulting printouts used by the Joint Board of Family Practice to assign residents to communities for interviews. Resident preferences of community size, geographic region of the state, availability of medical facilities and other physicians were key factors used in the matching process. Community preference was usually limited to the physician's specialty. An important factor for some residents was the possibility of employment for their spouse. This became a key factor for those spouses in a highly skilled field or profession, such as biochemistry, law, accounting, etc. For such couples, communities were selected with this in mind.

Evaluation

In evaluating the conferences, several general statements can be made. Experience with the Physician Recruitment Conference has indicated that some communities require advance preparation and do not come fully prepared the first time. Communities learn quickly, however, and the quality of their

recruitment efforts and of their displays usually improves rapidly with experience. There are other beneficial effects on communities other than the direct physician recruitment related to the conference. A number of communities have been stimulated by the lessons learned from the conference and subsequently embark on their own recruitment programs. Some communities have had inappropriate expectations, however, and have had to learn from their mistakes. In the first few years of the conference, a number of communities were simply seeking "a doctor" and did not distinguish any specialty requirement.

The conference clearly provided a job market that was unavailable to communities under any other circumstances, and they were generally very appreciative of the opportunity to recruit so many physicians at one time. From the questionnaires evaluating this year's conference, 92% of the community representatives felt they had ample time to meet and speak with the physicians and spouses, and 92% felt that the conference was well worth their time and effort to attend. All felt that the conference was well presented and that the information was useful and interesting.

The Physician Recruitment Conference clearly provided a job market that was unavailable to communities under any other circumstances.

Evaluation of the Pre-Practice Seminar also provided some interesting information about physicians. First, many physicians, particularly family practice residents, are making a practice site selection early. A few are making this selection 2 years or more ahead of completion of training, and many are making the decision a year and a half ahead. These physicians, in general, have had little exposure to practice management concepts and in many cases have not been prepared for some of the realities of the practice world. Careful planning and coordination are required to get the communities and the physicians together, and the conference clearly provides only a first contact. By holding the receptions, cocktail parties, and meals within the exhibit area in recent years, the interaction between community representatives and physicians has been greatly facilitated. In response to the evaluation questionnaire, 100% of the physicians felt they had an adequate opportunity to meet community representatives and that the conference was worth their time and effort to attend. Surprisingly, 85% responded that they used the pre-scheduled interview system, and 60% responded that they planned to visit some of the communities in the near future. All reported that they would recommend the conference to their colleagues.

The bottom-line question, however, is how many of these communities have had physicians placed through this conference. It was felt at the onset of the conference 4 years ago that an average placement of about five physicians per year would be a reasonable expectation for the conference after it was fully established. Thus far, 13 physicians have been placed in communities with whom they made their first contact at the conference. This does not include physicians who attended the 1980 conference, and as previously mentioned, there may be second-year residents who attended the 1979 conference who are considering locations with communities they met 2 years ago.

Financial Considerations

Financial resources and liabilities for the 1980 conference are presented in Table 1. Most of the operating income from the conference came from community registration fees. Although the registration fee is significant, $300, in the world of physician recruitment, this is an inexpensive price to pay for access to such a large number of physicians, most of whom are committed to practicing in rural areas. Although the 1979 conference was self-sufficient, the 1980 conference required approximately $2500 in supplemental funds contributed by the Callaway Foundation. In addition, each of the sponsoring organizations provided approximately $1000 cash or the equivalent in contributed services.

TABLE I — 1980 Pre-Practice Seminar Income and Expenses

Income	
Physician Registrations	$ 1,500
Community Registrations	10,050
Commercial Contributions	450
Co-Sponsor Contributions	4,000
Total Income	$16,000
Expenses	
Administrative	$ 5,850
Conference	6,575
Lodging	6,000
Total Expenses	$18,425

The Future

Another physician recruitment meeting — the 1980 "Medical Fair" — was held in Augusta on September 26-27. In addition to MAG and the Joint Board of Family Practice, the Medical Fair was sponsored by the Georgia State Medical Education Board (SMEB), the Medical College of Georgia, the University of Georgia Cooperative Extension Service, and the Georgia Municipal Association. The

focus of the Medical Fair was the placement of SMEB scholarship recipients and other residents in towns of under 15,000 population with a hospital.

The sponsors of both physician recruitment meetings have agreed to combine their efforts this year by holding the 1981 Medical Fair and Pre-Practice Seminar. This meeting will be expanded to include programs for medical and dental students. More physicians representing added specialties will be present, giving communities an opportunity to meet more residents with compatible interests. Communities attending the 1981 meeting must have hospitals and a population of less than 15,000.

It is significant that all sponsoring organizations of the two previous meetings agreed to join forces in sponsoring one meeting. This represents the first step in the development of a single conference in Georgia to address the problems associated with physician recruitment.

Conclusion

The Pre-Practice Seminar/Physician Recruitment Conference represents a unique effort. It clearly has limitations in that it is only a "first contact effort" and must be followed up in subsequent months by communities and physicians. It does, however, stimulate the communities to proceed with their physician recruitment efforts in a more organized and competitive fashion. It also offers both the communities and the physicians an extended period of time away from distracting daily routines allowing the two to interact and discuss practice opportunities.

The 1981 Physician Recruitment Conference (Medical Fair)/Pre-Practice Seminar represents the first step in the development of a single meeting in Georgia to address the problems associated with physician recruitment.

Recruitment programs in other states such as Virginia, North Carolina, Oklahoma, and Iowa are more highly integrated with actual onsite placement activities and field work by professional staff. None of them, however, provide such an elaborate "first contact" point. In addition, most of these other programs require considerable financial underpinning to provide the necessary staff for their activities, whereas the Pre-Practice Seminar is essentially self-supporting and less expensive to conduct.

Consideration should be given to blending the positive aspects of both approaches to achieve an economical and effective approach to physician recruitment.

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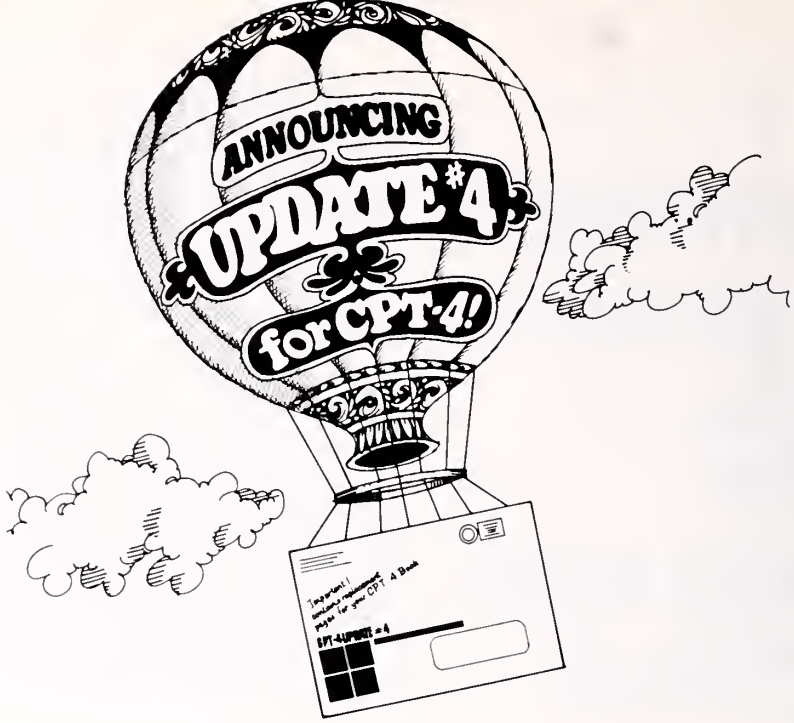
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BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g.) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus.

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision; however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS.) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties.

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM kg.) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative; when mammalian liver hemogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision; tinnitus, deafness, and vertigo; headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic-allergic: cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular, or scarlatinal); pruritus; flushing of the skin; sweating; occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related); epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSAGE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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A retrospective study conducted to define features useful in differentiating the two disease entities discussed.

Pseudo Anterior Myocardial Infarction as a Manifestation of Severe Pulmonary Embolism

CALVIN W. McLARIN, M.D., CLIFFORD A. LATTING, M.D., PAUL F. WALTER, M.D., and NANETTE K. WENGER, M.D., *Atlanta**

Chest pain, dyspnea, and syncope are common manifestations of both pulmonary embolism and myocardial infarction. This study was designed to retrospectively determine if any subjective and/or objective data could help distinguish massive pulmonary embolization from anterior myocardial infarction. The study group included 10 patients with documented massive pulmonary embolism who presented with electrocardiographic evidence of anterior myocardial infarction.

Sixty percent (6 of 10) of our patients had predisposing factors for pulmonary embolization. Frontal plane electrocardiographic changes suggestive of acute right ventricular ischemia were present in all patients.

Acute massive pulmonary embolism, presenting with electrocardiographic evidence of "pseudo" anterior myocardial infarction, is suggested by concomitant frontal plane electrocardiographic changes of acute right ventricular ischemia.

Introduction

Common subjective complaints of chest pain, dyspnea, and syncope frequently do not help distinguish between patients with acute massive pulmonary embolism and patients with acute myocardial infarction. Predisposing factors for venous thrombosis may be helpful in increasing the clinical suspicion of pulmonary embolization. Evidence of acute cor pulmonale at cardiovascular examination is helpful; a prominent A wave in the jugular venous pulse, a right ventricular gallop, an increased pulmonic component of the second heart sound, wide splitting of the second heart sound components, and a left parasternal impulse may be present in patients with acute massive pulmonary embolization but not in patients with acute anterior myocardial infarction. Prominent central pulmonary arteries with decreased peripheral flow, atelectasis, elevation of the hemidiaphragm, and pleural effusion on chest x-ray should increase the suspicion of pulmonary embolization. Hypoxemia may be present with both disorders. Electrocardiographic changes are common with acute massive pulmonary embolism. Three categories of electrocardiographic changes have been described: (1) horizontal plane abnormalities; (2) frontal plane abnormalities; and (3) cardiac dysrhythmias.[1]

A characteristic horizontal plane abnormality of severe pulmonary arterial obstruction is a "pseudo" anterior myocardial infarction pattern: an anterior ST vector (elevated and/or convex ST segments) and a posterior T vector (inverted T waves) in the right precordial leads.[2] Abnormal Q waves in the right precordial leads and an injury current, as evidence of an anterior dead zone, had been thought to be useful in distinguishing acute anterior myocardial infarction from pulmonary embolism, but these changes

* From the Department of Medicine, Division of Cardiology, Emory University School of Medicine, Grady Memorial Hospital, and the Veterans Administration Medical Center in Atlanta. Send reprint requests to Dr. Wenger, Professor of Medicine, 69 Butler St., SE, Atlanta, GA 30335.

also occur in patients with pulmonary embolism without coronary atherosclerotic heart disease.[3, 4] Thus, the patient with pulmonary embolism presenting with electrocardiographic evidence of anterior ischemia, without previously documented coronary atherosclerotic heart disease, remains a diagnostic dilemma. Other horizontal plane electrocardiographic abnormalities include ST segment depression in the left precordial leads, as a reciprocal change of the right precordial lead ST segment elevation, a prominent S wave in lead V_6, and transient right bundle branch block. The electrocardiographic manifestations of acute pulmonary embolism in the frontal plane include the S_1 Q_3 T_3 (McGinn-White)[5] pattern, right axis deviation, transient right bundle branch block, an S_1 S_2 S_3 pattern, P-pulmonale, and a pseudo inferior myocardial infarction pattern.[5, 6] Atrial arrhythmias are frequent with acute pulmonary embolism, but ventricular extrasystolic complexes and first degree A-V block also have been described.[2]

In this study, we attempted to retrospectively define features that would be useful in differentiating patients with acute pulmonary embolism from those with acute anterior myocardial infarction.

Methods

The records of 10 patients with documented, acute, massive pulmonary embolism who presented with horizontal plane electrocardiographic evidence of anterior myocardial infarction were reviewed retrospectively. These records included patients presenting over an 8-year period to two teaching hospitals of the Emory University School of Medicine, Grady Memorial Hospital, and the Atlanta Veterans Administration Medical Center. All patients fulfilled the following criteria: (1) Electrocardiographic changes compatible with acute anterior myocardial infarction, i.e.: an anterior ST vector with a posterior T vector (unequivocally inverted T waves in precordial leads V_1 through V_4) (Figure 1); and (2) perfusion lung scan, pulmonary arteriogram, and/or necropsy evidence of massive pulmonary arterial obstruction, i.e., involving more than 50% of the pulmonary circulation.

The hospital record of each patient was reviewed for (a) presenting symptoms, (b) vital signs, (c) history of coronary atherosclerotic heart disease, chronic obstructive pulmonary disease, or thromboembolism, (d) initial physical findings, (e) initial blood gas determinations (breathing room air), (f) admission chest x-ray, (g) admission electrocardiogram, and (h) clinical complications.

The electrocardiograms were specifically examined for frontal plane abnormalities suggestive of pulmonary embolism and cardiac dysrhythmias other than sinus tachycardia.

Results

History

None of the patients had a history of angina pectoris, myocardial infarction, thromboembolism, or chronic obstructive pulmonary disease. Six patients reported the onset of major symptoms within 24-48 hours of hospitalization. The most frequent symptoms were shortness of breath and chest pain. Four of the 10 patients had syncope or near-syncope (Table 1).

Physical Examination

Eight patients had a right ventricular gallop (S_3) and an increased intensity of the pulmonic component of the second heart sound. The two patients without these findings were hypotensive. Sinus tachycardia was present in eight patients (Table 1).

Laboratory Data

Nine patients were hypoxemic, with arterial oxygen determinations (breathing room air) ranging from a pO_2 of 37 to 64 mm Hg. One patient had a pO_2 of 85 mm Hg (Table 1). Six patients had abnormal chest x-rays, but only four had increased prominence of the pulmonary artery segment. All seven patients who had perfusion lung scans had evidence of involvement of multiple pulmonary arterial segments. Five patients had pulmonary angiography; all had multiple pulmonary arterial segments involved, with greater than 50% total obstruction. Three patients had both perfusion lung scans and pulmonary angiography; test data were comparable (Table 1).

Five patients died; at autopsy, all had evidence of pulmonary emboli involving several pulmonary arterial segments; none had evidence of gross or microscopic myocardial necrosis or significant coronary arterial obstruction.

Electrocardiograms

All 10 patients had changes suggestive of acute right ventricular ischemia. Six had a superior T vector (inverted T waves in the inferior leads), four had the S_1 Q_3 T_3 pattern, two had P-pulmonale, two had an intraventricular conduction delay of the right bundle branch block type, and one had an S_1 S_2 S_3 pattern (Table 2). Eight had sinus tachycardia, while two had normal sinus rhythm. No other dysrhythmias were present on initial examination. Three of the five patients who died had electrocardiographic evidence of pseudo inferior myocardial infarction, and two patients had an intraventricular conduction delay of the right bundle branch block type. The electrocardiographic changes resolved within 7 to 10 days in the five patients who lived.

Discussion

That many pulmonary emboli are unrecognized is evidenced by the disparity between the incidence of

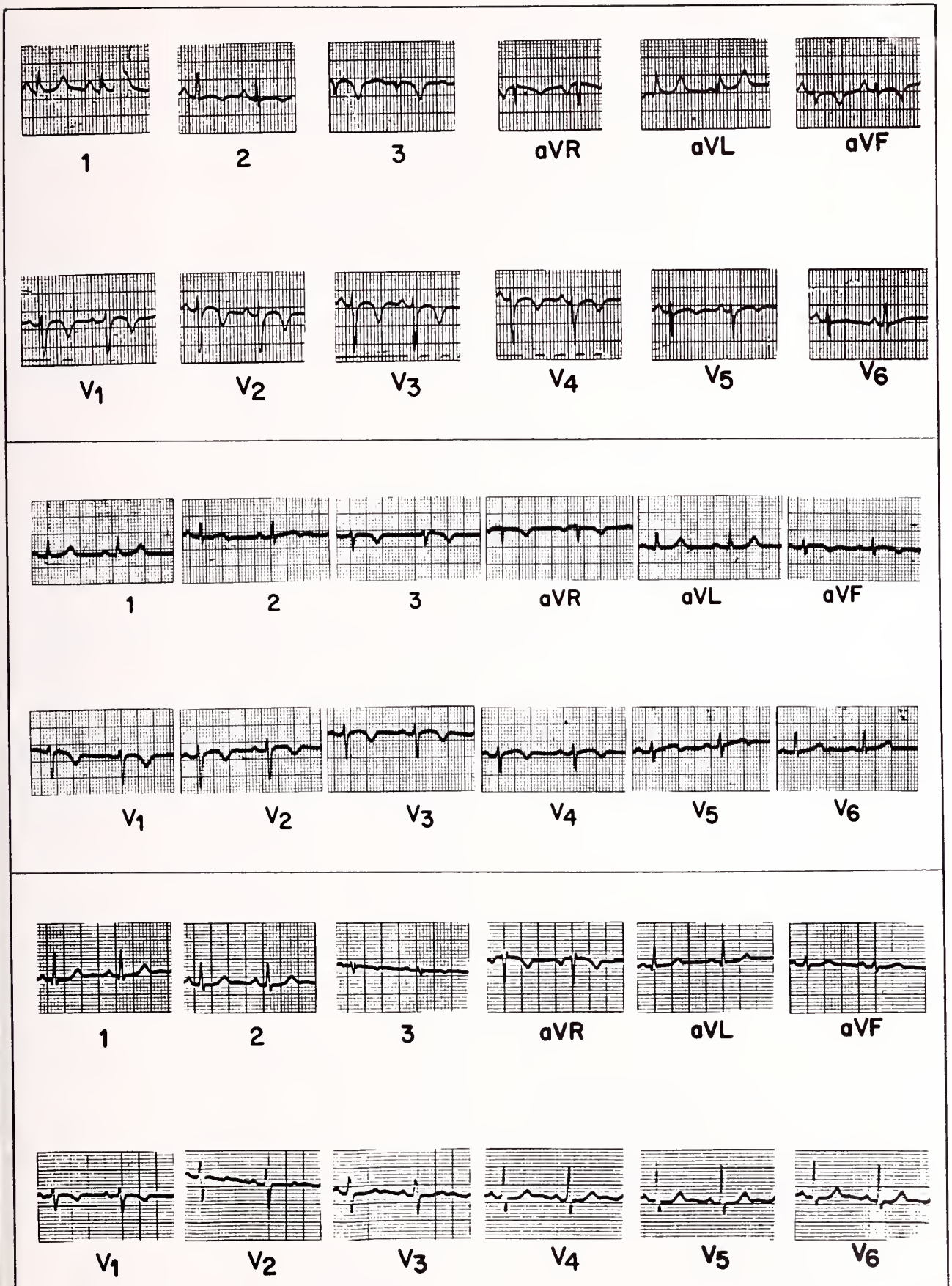


Figure 1 — Acute massive pulmonary embolism. A. (Top) August 8; B. (Middle) August 13; C. (Bottom) November 22.

TABLE 1 — Summary of Data on Patients with Pseudoanterior Myocardial Infarction as a Manifestation of Severe Pulmonary Embolism

Age/Sex	Presenting Symptoms	Vital Signs	Arterial Oxygen (mm Hg) (Breathing Room Air)	Perfusion Lung Scan	Pulmonary Angiogram	Autopsy
27 M	Syncope, chest pain	BP 130/80 P 105	pO_2 = 85	Not done	+ bilaterally MPA = 43	Survived
38 M	Syncope, chest pain	BP 110/90 P 100	pO_2 = 64	Not done	Not done	+ both PA for pulmonary emboli; no significant CASHD
40 F	Near syncope, SOB, chest pain	BP 140/90 P 100	pO_2 = 55	+ LUL, RUL	+ bilaterally MPA = 35	Survived
42 M	Chest pain, SOB	BP 140/90 P 90	pO_2 = 56	+ LLL, RLL	+ bilaterally MPA = 40	Survived
49 M	SOB	BP 100/70 P 105	pO_2 = 37	Not done	+ bilaterally MPA = 30	+ both PA for pulmonary emboli; no significant CASHD
49 M	Chest pain	BP 90/60 P 125	pO_2 = 50	+ both lungs	Not done	Pulmonary emboli; no significant CASHD
55 M	SOB	BP 130/94 P 112	pO_2 = 48	+ LLL, RLL	Not done	Survived
67 M	Syncope, chest pain, SOB	BP 160/100 P 85	pO_2 = 57	+ RML, RLL	+ bilaterally MPA = 23	Survived
67 M	SOB	BP 118/92 P 120	pO_2 = 59	+ LLL, RLL	Not done	Pulmonary emboli; no significant CASHD
79 F	Chest pain, SOB	BP 80/60 P 130	pO_2 = 59	+ both lungs	Not done	Pulmonary emboli; no significant CASHD

Explanation of abbreviations and symbols: LUL = left upper lobe; LLL = left lower lobe; RUL = right upper lobe; RLL = right lower lobe; MPA = mean pulmonary artery pressure; P = pulse; BP = blood pressure; F = female; M = male; SOB = shortness of breath; (+) = positive.

TABLE 2 — Electrocardiographic Changes of Patients with Pseudoanterior Myocardial Infarction

Age/Sex	Frontal Plane
27 M	Superior T vector; S_1 Q_3 T_3 pattern
38 M	Superior T vector
40 F	Superior T vector; S_1 Q_3 T_3 pattern, P-Pulmonale
42 M	Vertical axis with S_1 S_2 S_3 pattern
49 M	Superior T vector, S_1 S_2 S_3 pattern
49 M	Right bundle branch block (RBBB)
55 M	Superior T vector, S_1 Q_3 T_3 pattern
67 M	P-pulmonale
67 M	Incomplete RBBB
79 F	S_1 Q_3 T_3 pattern; superior T vector

the clinical and pathologic diagnoses. The clinical course of untreated pulmonary embolism is one of recurrence; the incidence of fatality increases with recurrence. Prompt clinical diagnosis and initiation of anticoagulant therapy are essential.

Acute pulmonary embolization may be very difficult to distinguish from acute myocardial infarction. This becomes even more difficult when acute massive pulmonary embolism with right ventricular ischemia occurs. The signs and symptoms may be similar to that of acute anterior myocardial infarction. A history of shortness of breath, chest pain, and syncope does not help differentiate between acute massive pulmonary embolism and acute myocardial infarction, as these symptoms are common to both. Venous thrombosis is a frequent predisposing factor for pulmonary embolism and may be helpful in suggesting the diagnosis.

Abnormalities of the cardiac examination suggesting acute cor pulmonale are helpful if present and recognized, but these findings are frequently misinterpreted. For example, a right ventricular gallop may be confused with a left ventricular gallop, and the changes in the pulmonic component of the second heart sound may be subtle. In our study, the history was not useful in distinguishing pulmonary embolism from myocardial infarction. Physical examinations suggested acute cor pulmonale in eight of the patients.

Chest radiographic examinations may be helpful if signs of pulmonary infarction are present. If not, the difficulty in distinguishing between acute pulmonary embolism and acute myocardial infarction persists. Chest x-rays were not diagnostically useful in the present study. Although hypoxemia is common to both problems, it may increase the clinical suspicion of acute massive pulmonary embolus if it occurs without radiologic evidence of pulmonary edema.

The electrocardiogram may help distinguish the patient with acute pulmonary embolism from one with acute anterior myocardial infarction. Although both disease entities may present with similar horizontal plane electrocardiographic changes, the mechanisms differ. The electrocardiographic manifestations of anterior ischemia and injury (pseudo anterior myocardial infarction) in acute massive pulmonary embolism have been attributed to acute right ventricular "ischemia" as a consequence of acute cor pulmonale.[7] If acute cor pulmonale does not result from pulmonary embolism, anterior repolarization abnormalities are not present on the electrocardiogram. The etiology of the acute pulmonary hypertension includes mechanical obstruction due to arterial clot and functional obstruction of the pulmonary arteries by vasoconstriction, either reflex or secondary to the local release of vasoactive amines[8-10] Another explanation for the pseudo infarction pattern of pulmonary embolism could be compromised coronary arterial blood flow; however, coronary arterial blood flow in experimental pulmonary embolus was either unchanged or increased in the absence of hypotension.[12-13]

Eleven percent of a large series of patients (10 of 90) with pulmonary embolism had a pseudo infarction pattern.[6] Eight of 50 patients (16%) with massive pulmonary embolism had this pattern, as compared with two of 40 patients with submassive embolism. In our study, pulmonary embolization was defined as massive when two or more lobar pulmonary arteries were involved. All of our patients had multiple pulmonary artery segments involved. In addition to the pseudo anterior infarction pattern, all 10 patients had electrocardiographic abnormalities in the frontal plane. Six patients had electrocardiographic abnormalities suggestive of inferior myocardial ischemia, the most frequent frontal plane abnormality. This finding of pseudoinferior infarction agrees with Dr. Marriott's aphorism: "If you find yourself diagnosing inferior infarction from the limb leads and anteroseptal damage or infarction from the chest leads, think of pulmonary embolism."[14]

Conclusion

Acute massive pulmonary embolism may present with a pseudo anterior myocardial infarction electrocardiographic pattern in the horizontal plane. Concomitant frontal plane abnormalities of right ventricular ischemia were present in all 10 of our patient. Concomitant anterior and inferior ischemia in patients presenting with chest pain, dyspnea, and syncope should suggest massive pulmonary embolism as a likely diagnosis.

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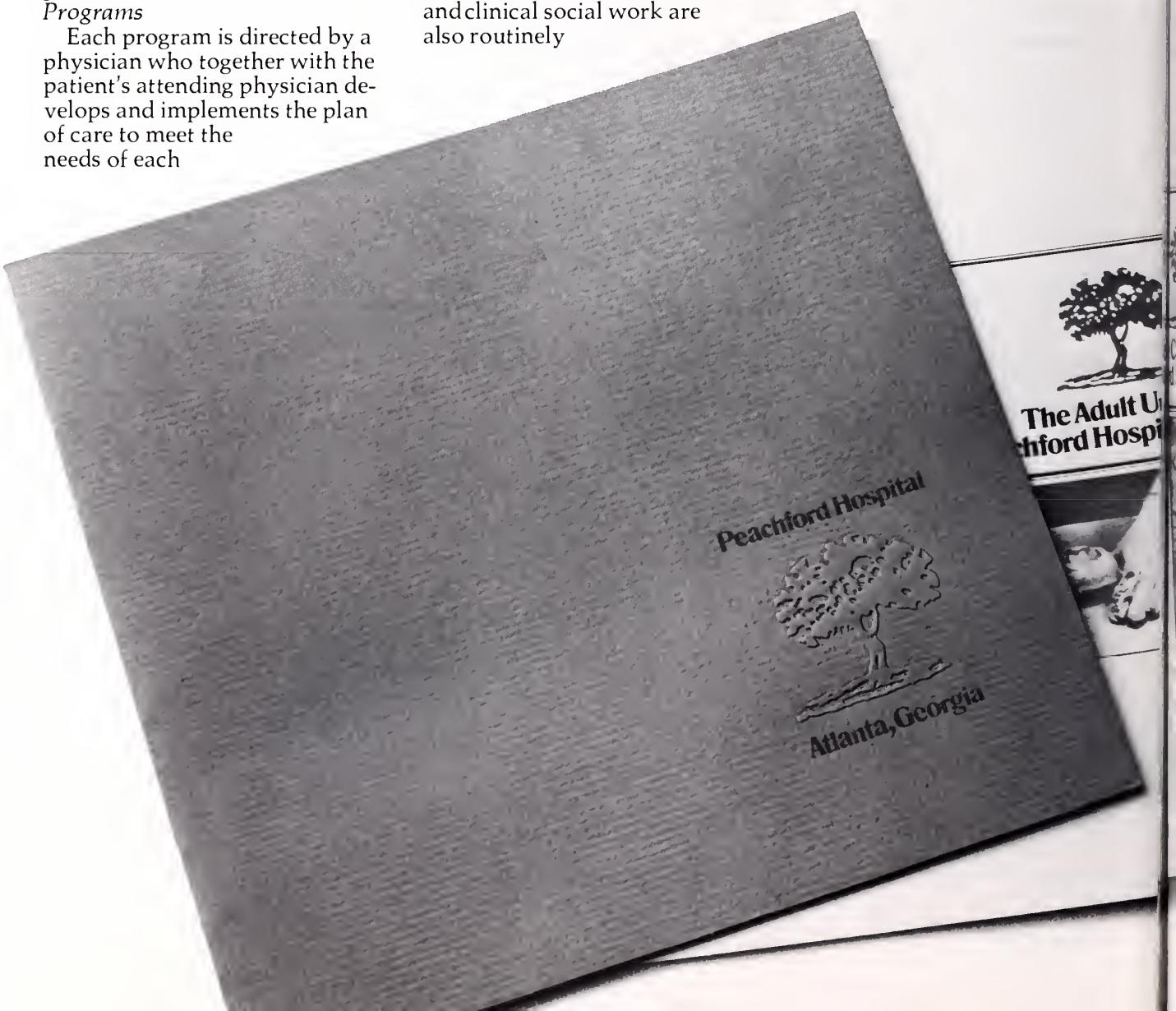
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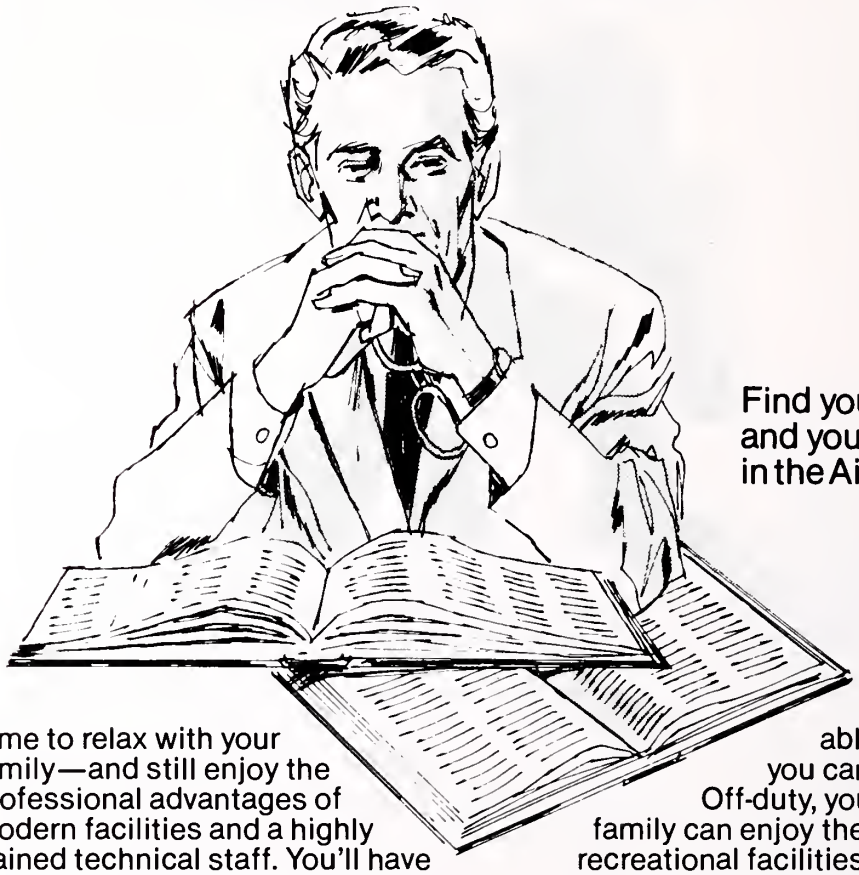
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AIR FORCE

A great way of life.

The author discusses utilization review and quality assurance committees which, though originally mandated by federal regulation and federally controlled, have become increasingly managed and controlled by physicians and nurses.

The Physician Advisor: Genesis and Rules

THOMAS L. GERMAN, M.D., *Savannah**

THINGS WERE NEVER to be the same after implementation of Public Law 92:603, the federal government's regulation (i.e., law) that spawned utilization review and quality assurance committees in our hospitals. Washington was injecting huge sums of money into the health field, and inevitably, as has happened in any sector that accepted government money, bureaucracy began to exert controls over "our" health sector under the time-honored policy of the right to steward their money.

The idea that the federal government could improve efficiency and upgrade quality in a profession was incredulous to anyone with even a passing acquaintance with federal efficiency and quality. Reference was usually made to the postal service. At least we soon began to recognize that the hated task would be largely implemented at a sensitive level, that is, at the doctor/patient level and oddly enough, by someone who knew something about the subject — doctors and nurses. There was, then, hope.

The digestion of the multiple regulations that followed has not been necessarily easy. Those on the committees tended to be looked upon with suspicion and sometimes acquired nicknames such as "the Gestapo" and "the Cosa Nostra." Despite these expected stigmata, the committees began to function, gradually learning their LOS's and from scratch how to perform audits. We also learned "bureaucratese." Discharge planning was eschewed by everyone and was, therefore, a messy area of waste. Social services allied themselves with utilization personnel to implement improvements and make this area sparkle like polished brass. Gradually came the dawning that the regulations implementation did not lead to tar and feathers, but neither did it lead to profound improvements in monetary efficiency or quality control (changed to assurance to mute the threatening tone). It was amazing how most of the physicians learned what it was all about, not because of a plethora of supplied information (what was supplied went largely unread) but by osmosis. The nurse coordinators were the vital link in setting the tenor of the osmotic process.

As might be expected, we all learned more about government ways. An appeal to Washington legislators about a wasteful, time-consuming task got a quick reply from the regulatory commission promising action and subsequently, almost yearly letters promising action but, of course, none was ever forthcoming. Accountability, it soon became apparent, was largely a one-way street. Best not point that out, they could get nasty.

In Georgia, we found that we had the right to appeal refusals of claims that, when reviewed, seemed invalid. This gave us the chance to champion the cause of our fellow physicians and downtrodden patients, a role we relished and badly needed. Some hospitals were experiencing reversals of unjust refusals as high as 70% and above, depending upon their selectivity and skill (and the righteousness of the original claims). When an official from the then-HEW learned of the fair process, it was abruptly cancelled. It was replaced with an appeal process far more byzantine and indirect, which, nevertheless, is still being determinedly used.

* Dr. German is an orthopedic surgeon; chairman of Utilization Review, Candler General Hospital; member of ACURP; and Board Certified ABQAURP. Send reprint requests to him at Candler General Hospital, P.O. Box 9787, Savannah, GA 31412.

The American College of Utilization Review Physicians (ACURP)

As the government kept changing the rules of the ball game, it became evident that we all needed more professionalism to hold our own. The physicians on the committees became known as physician advisors — connoting a learned expertise, but without any formal training. As nature abhors a vacuum, programs soon sprang up to provide better communication, sharing, and codification of the burgeoning field. We at Candler General Hospital in Savannah joined such a group, the ACURP (American College of Utilization Review Physicians) — at first as a whimsy. As time passed, the value of the monthly periodicals, and later the seminars, became apparent. Here was a body actually representing us, to whose seminars came those same government officials known to us only in shadowy terms to explain their policies (or admit sometimes they could not). The academicians and slide-rule people came to explain their theories and why they (the theories) were realistic/unrealistic. Real exchange took place. The realization that it was possible for even physicians to sophisticate themselves in this "pot at the end of the rainbow" led to the institution of courses in some of the medical schools and, you guessed it, the institution of ABQAURP, the American Board of Quality Assurance & Utilization Review Physicians, Inc., complete with board examination. Public Law 92:603 has come of age, working its way from bed pan to academe.

ACURP has come to signify something rather special, since it signifies a transition in which physicians have come to dominate a field that the government originally intended for itself. One result is that there is more balance in the relationship of the physician and nurse coordinator and higher echelons of government. Ultimately, this is a healthy relationship and the only way that affords any realistic way of achieving the goals of proper utilization and quality assurance.

PSRO is with us finally in Georgia, although its mandate is tenuous in "these Reagan days." The main changes it will mean to your committees is that of *more* physician checking and more focusing out of some of the hospital areas. That might seem to mean more time for the nurse coordinators, but apparently the gap is filled with an increase in paperwork.

Now that JCAH has become involved in quality assurance, Interqual and other agencies have held multitudes of seminars, probably leading to hospitals hiring them (they expect) to expertly handle the interchange with the commission. A little injection of private enterprise. Committees may be merging, splitting, cloning, and disappearing (or changing their names) as the hospitals grope toward what the JCAH edict may mean.

Then, there is Risk Management, also an outgrowth of all of this. Again, more seminars and a new field, inter-related because of cybernetic methods and overlapping intent. It will be "humanized" as have been most of the other dreary protocols and policies by physicians, nurses, and administrators. There is no mistaking the common benefit of this area of endeavor, given our present litigious climate in America.

Guidelines for the Physician Advisor

So, perhaps you are, or will become, a physician advisor, or a chairperson of, for instance, utilization review. Here are some helpful guidelines to follow:

1. Learn something about what you are doing before practicing it or judging it. The ACURP is an excellent resource for this and you may wish to become a member.
2. Honor your nurse coordinators. They deserve it.
3. Don't take sides quickly. Try instead for resolution.
4. Emphasize your potential for helping fellow physicians, not any punitive role.
5. Keep some "offenders" appointed to the committee. Many will reform once they learn the process.
6. Avoid over-representation by "offenders" or "damn the torpedoes federal haters." They can wreck or take over the committee.
7. Never play "get the Doc."
8. Firm, but friendly.
9. A little humor never hurt any bureaucratic endeavor.

The use of mayonnaise to remove tar from the skin is pain free and spares the patient other abrasive removal procedures. No sensitivity or toxicity has been observed.

Mayonnaise and Hot Tar Burns

P. C. SHEA, JR., M.D. and PEGGY FANNON, R.N., *Atlanta**

Successful debridement of tar from burned skin can be accomplished with mayonnaise. Tar burns are exeedingly painful due to the intense heat of the tar and because it is slow to cool. Moreover, the burn is usually second degree. As in other burn injuries, removal of the offending agent is ideally accomplished by using something that will not produce more trauma and increase the depth of the wound. Mayonnaise has proven to be a pain-free, convenient debriding agent when used in repeated applications without scrubbing.

Classically, many topical agents have been used to debride tar including Vaseline®, mineral oil, diesel fuel, alcohol, gasoline, kerosene, acetone, ether, Neosporin® ointment,[1] Tween 80, etc.[2] Ice and iced water will harden tar and allow larger pieces to be lifted off the wound.[3]

Case Reports 1979-1980

Patient #1, age 18, opened a tank truck valve and was splashed with tack (very hot, liquid asphalt). Thick amounts of asphalt were splashed on his right arm and forearm and lesser amounts on his hands, face, ears, and neck. Total B.S.A. equalled 12%. Attempts to cream and remove the asphalt with antibacterial ointments proved too painful for the patient. A layer of mayonnaise ⅛ inch thick with an overlying soft multi-layered gauze roll was applied every 6 hours. All tar disappeared in 48 hours, and the patient reported freedom from pain.

Patient #2, aged 26, was injured while unloading a tanker truck. Tar covered his right hand and arm. Mayonnaise with a soft roll dressing was applied every 6 hours. All tar was removed within 72 hours, and the patient experienced no pain with its removal.

Patient #3, aged 48, is an asphalt tanker truck driver. When a valve on the truck malfunctioned, he was covered with tar on both forearms, his right arm, and splattered with tar on his face and ear. Also, tar ¼ to ½ inch thick was embedded in his hair and on his scalp. Mayonnaise was applied with dressings every 6 hours, and all tar was removed from his skin in 48 hours. It did take, however, 5-6 days for it to melt out of his hair.

Discussion

Mayonnaise is defined as a semi-solid emulsion of 80% edible vegetable oil, vinegar, lemon juice, and egg yolk, with one or more of the following ingredients: salt, sweeteners, mustard, paprika, and other spices and monosodium glutamate.[4] It has a pH range of 3.6-4.0. Acetic acid is the predominant acid. In addition to its obvious palatable qualities, mayonnaise has other good uses. Due to its low pH and acetic acid content, it inhibits most microorganisms.[4] It is documented that spoiled vegetables or meat are more apt to be the cause of food poisoning, rather than the mayonnaise with which they are combined.[5]

In common usage, asphalt is called tar. In actuality, liquid or solid, the so-called tar (or asphalt) is a product of modern-day refinery distillation from crude oil. In addition to paving, asphalt has multiple uses. Asphalt is used in many types of roofing, battery cases, waterproof lining in automobiles, railroad ties, building insulation, etc. In the paving industry, it may be mixed with sand, rock, or gravel for surfacing roads.

It is interesting to note that as early as the 16th century, Ambroise Paré, a French surgeon, discontinued the use of hot oil to cauterize wounds when he had to substitute a homemade ointment of yolk of eggs, attar of roses, and turpentine.[6] This mixture, soaked in a cloth and applied as a dressing, improved

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healing in his military patients.

Ice or iced water can be used to solidify larger pieces of asphalt attached to skin. In turn, with suitable analgesia, these pieces can be lifted off the wound. Asphalt smeared, splattered, and embedded in the hair surfaces will not let go. The use of petroleum type ointments or Neosporin® ointment has not been as easy or satisfactory as the method described here.

Mayonnaise is applied ⅛ inch thick to the asphalt bearing surface and covered with a multi-layered soft gauze roll. A dressing change is carried out every 6 hours either by simple removal, tub soak, or whirlpool. During the period between dressing changes the dressings become quite black, as does the whirlpool water when used.

With this technique, the patients are much more comfortable and are spared procedures that are abrasive. The use of mayonnaise is pain free, and it is easily removed by washing. As soon as the asphalt is gone, other topical agents are used as indicated. No sensitivity pattern has developed using this technique nor has any toxicity or allergy been observed.

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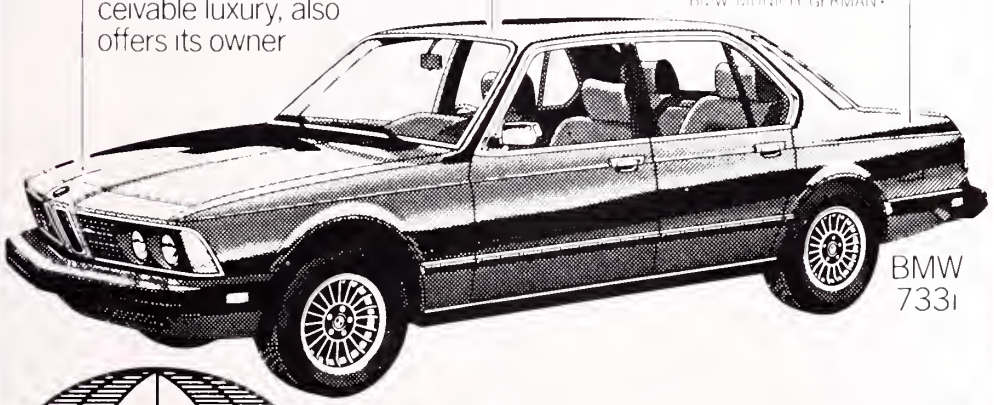
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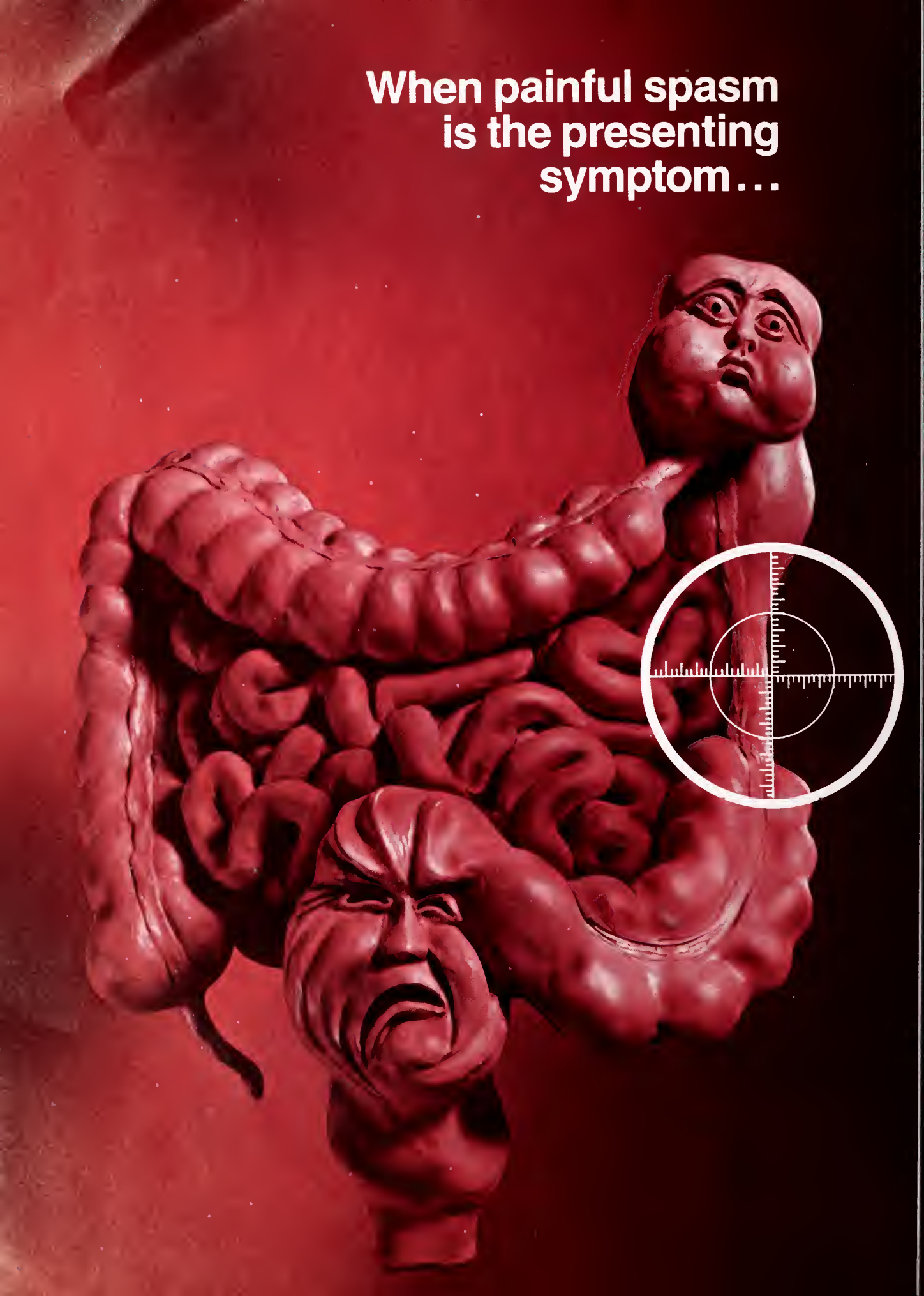


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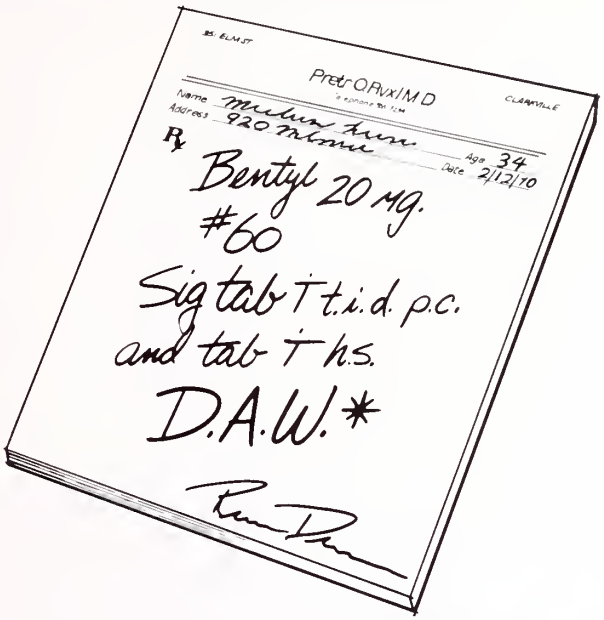
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*D.A.W.-Dispense as written

because:

- The Bentyl molecule is a product of original Merrell research.
- At Merrell Dow, Bentyl must go through 140 checkpoints/tests from its synthesis through the packaging of the final product.
- Bentyl bioavailability of tablets, capsules, syrup and injectable is evidence of its prompt absorption.
- Bentyl helps control abnormal gastrointestinal motor activity with minimal anticholinergic side effects. (See Warnings, Contraindications, Precautions, and Adverse Reactions on next page.)
- The bioequivalence of the oral dosage forms permits a choice of tablet, capsules, or syrup that satisfies patient's dosage preferences.
- Significant pharmacologic effect in the distal colon compared to placebo,[1] shows how Bentyl controls abnormal motor activity in the irritable colon patient.*

*This drug has been classified "probably" effective for this indication.

Merrell Dow

Reference:
1. Chowdhury AR and Lorber SH: Personal communication, 1980.

(See Product Information on the next page before prescribing Bentyl.)

Although the dose of Bentyl used to show pharmacologic effect was 50 mg, which is a higher single dose than that permitted in the labeling, the dose was considered justified, since the recommended daily dose of injectable Bentyl is 20 mg (2 ml) every 4 to 6 hours. Thus, in 8 hours, a patient could receive a total of 60 mg I.M. and, at that time, as a result of the sustained plasma levels from the 20 mg injections at 0 and 4 hours, might show an even higher plasma level than occurs after a single 50 mg dose. Presumably, the same pharmacologic effect would follow. These observations do not constitute evidence of efficacy.

Bentyl®

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and/or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.

Use with caution in patients with

Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.

Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.

Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia, urinary hesitancy and retention, blurred vision and tachycardia, palpitations; mydriasis, cycloplegia, increased ocular tension, loss of taste, headache, nervousness, drowsiness; weakness; dizziness, insomnia, nausea, vomiting, impotence, suppression of lactation; constipation, bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons, and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.

Usual Dosage

Bentyl 10 mg. capsule and syrup. *Adults:* 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children:* 1 capsule or teaspoonful syrup three or four times daily. *Infants:* ½ teaspoonful syrup three or four times daily. (Dilute with equal volume of water.)

Bentyl 20 mg. *Adults:* 1 tablet three or four times daily.

Bentyl Injection. *Adults:* 2 ml. (20 mg.) every four to six hours intramuscularly only.

NOT FOR INTRAVENOUS USE

MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of July, 1980

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Uncommon, Life-threatening Left Upper Quadrant Mass

ROBERT B. PRICE, M.D., and LETITIA CLARK, M.D., *Atlanta**

Dr. Letitia Clark: The patient is a 53-year-old black woman who presented to the Medical Clinic with dull left upper quadrant pain. Physical examination revealed firmness in the left upper quadrant. Because of this, an intravenous urogram was performed. Dr. Price will review that study.

Dr. Robert Price: In both children and adults, intravenous urography is an appropriate examination to radiographically evaluate a patient with suspected upper abdominal mass. The examination poses little risk to the patient in most instances, is cost effective, and yields a significant amount of useful information.

In this particular case, the first abdominal radiograph obtained after intravenous injection of a contrast medium revealed a large, soft tissue mass with central faint calcification in the left upper quadrant (Figure 1). The mass was inseparable from the upper pole of the kidney. The kidney itself appeared to be rotated and inferiorly displaced, but the collecting system was uninvolved. Although the evidence suggested a lesion arising above the kidney, it was difficult at that time to exclude an upper pole renal mass.

The most likely lesion arising from just above the kidney would be an adrenal tumor. Of the primary adrenal tumors, the cortical adenocarcinoma is the most likely; adenomas only occasionally reach the apparent size of this lesion. Of the primary medullary tumors, pheochromocytoma is most common, while ganglioneuroma is rare. Neuroblastoma, so common in early childhood, is not usually seen at this age. Metastatic adrenal tumors are seen more frequently now, but they would not be expected to reach this size while the primary tumor remained occult. Metastases are often bilateral, with breast and lung being the most common primaries.



Figure 1 — Intravenous pyelogram demonstrating a left upper quadrant mass (solid arrows) inseparable from the upper pole of the left kidney, with downward displacement of the kidney (open arrows). (The faint calcifications seen on the original radiograph are not visible on this photograph.)

In the event that this lesion is of renal origin, renal cell carcinoma would be most likely. A renal cyst would seldom show this type of faint central calcification.

Dr. Clark: In an effort to better define the site of origin of this lesion and to better define its size and

* Drs. Price and Clark are from the Department of Radiology, Emory University School of Medicine, Atlanta, GA. This article is derived from a weekly X-ray conference, Department of Radiology, Emory University School of Medicine. The conference material was edited by Drs. J. L. Clements and H. S. Weens. Send reprint requests to Dr. Price at the Dept. of Radiology, Sch. of Med., Emory Univ. Hospital, 1364 Clifton Rd. N.E., Atlanta, GA 30332

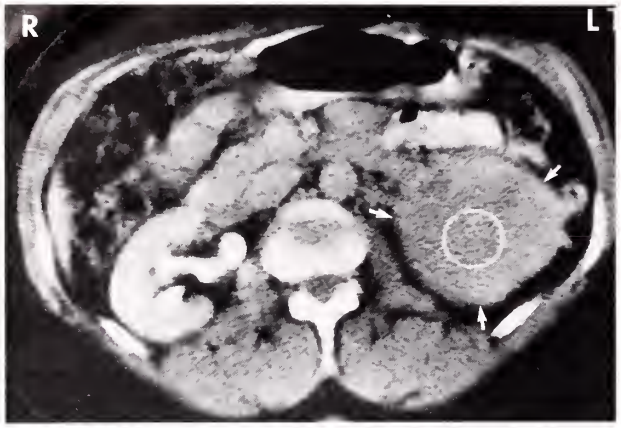


Figure 2 — Transverse computerized tomographic section of the upper abdomen in a plane above the left kidney demonstrating a spherical, soft tissue mass (arrows), 6 cm in greatest diameter. The central ring within the demonstrated mass lesion represents a scan cursor used in the determination of absorption coefficiency.

retroperitoneal extent, a computerized tomographic (CT) scan of the abdomen was obtained. Dr. Price will discuss the results.

Dr. Price: CT of the abdomen with today's "fourth-generation" scanners has initiated a new era in radiographic evaluation of the retroperitoneum. There is little that occurs in this compartment with significant morphologic manifestations which is not detected by CT. Adrenal pathology is particularly well evaluated by this method.

In this case, multiple transverse sections through the upper abdomen were obtained (Figure 2). The study revealed a spherical, soft tissue tumor measuring approximately 6 cm in greatest diameter arising just above the inferiorly displaced left kidney. There were areas of central calcification in this lesion. The pancreas and stomach were displaced anteriorly and the spleen laterally. The aorta appeared to be uninvolved. There was no evidence of retroperitoneal adenopathy, and the contralateral adrenal gland appeared normal. At this point, we were more certain of an adrenal origin, and adenocarcinoma and pheochromocytoma were most likely. Were urinary studies for steroid and catecholamine metabolites obtained?

Dr. Clark: Twenty-four hour ketosteroids were within normal limits, VMA was elevated at 75 mg for a 24-hour collection.

Dr. Price: Then we have essentially established the diagnosis of adrenal pheochromocytoma.

Dr. Clark: As a preoperative aid in establishing the vascular supply of the tumor an angiogram was performed.

Dr. Price: Adrenal arteriography is a very sensitive method for detecting adrenal tumors. The method is also useful preoperatively in determining vascular



Figure 3 — Angiographic film of a selective injection of the left inferior adrenal artery demonstrating a highly vascular tumor with neovascularity, vascular puddling, and arteriovenous shunting. This pattern is seen in adenocarcinoma and pheochromocytoma of the adrenal.

anatomy and in distinguishing between adrenal and extra-adrenal tumors when the differential diagnosis is otherwise difficult. Occasionally, adrenal venography is necessary to demonstrate small adrenal adenomas.

Whenever arterial studies are attempted in patients with suspected pheochromocytoma, ganglionic blocking agents should be administered to reduce the likelihood of hypertensive or hypotensive crisis or cardiac arrythmia. A nitroprusside drip should be running during the study for control of hypertension.

In this case, we have selected films from a midstream aortic injection at the level of the renal arteries, and a selective injection of the left inferior adrenal artery (Figure 3). We see from the aortic injection that the mass is supplied by enlarged superior, middle, and inferior adrenal arteries. The tumor is highly vascular and demonstrates the neovascularity, vascular puddling, and arteriovenous shunting characteristic of tumors. This pattern can be seen in adenocarcinoma and pheochromocytoma. Of course, the elevated VMA confirmed the diagnosis of pheochromocytoma.

Dr. Clark: Radiographic evaluation of the patient was completed, with chest x-rays and liver and bone scans. No evidence of metastases was detected.

Surgery revealed a large bulky mass adherent to the spleen and kidney. The spleen, left kidney, and tumor were removed en bloc. Pathologic examination confirmed pheochromocytoma. The patient has convalesced well and without incident.

Discussion

Pheochromocytoma is an uncommon tumor. It arises from chromaffin tissue found in the adrenal medulla, sympathetic ganglia, organs of Zuckerkandl about the aortic arch, carotid bifurcation, and jugular bulb, as well as the urinary bladder. Fifty percent arise from the adrenal medulla, and 90% arise between the diaphragm and pelvic floor.

The tumor is found in both children and adults, but is most common in persons between 30 and 50 years of age. In adults, the lesion occurs equally in men and women, but in children it is more common in boys. The tumor is also encountered as part of the multiple endocrine adenomatosis syndrome Type II, and is seen with greater than random frequency in neurofibromatosis and Von Hippel-Lindau disease.

Most pheochromocytomas are solitary benign tumors; however, approximately 7% are multifocal, and 6% are malignant. The rate of malignancy is higher in younger patients and in familial syndromes. Malignant lesions tend to metastasize to periaortic nodes, liver, lung, and bone when they arise in the abdomen.

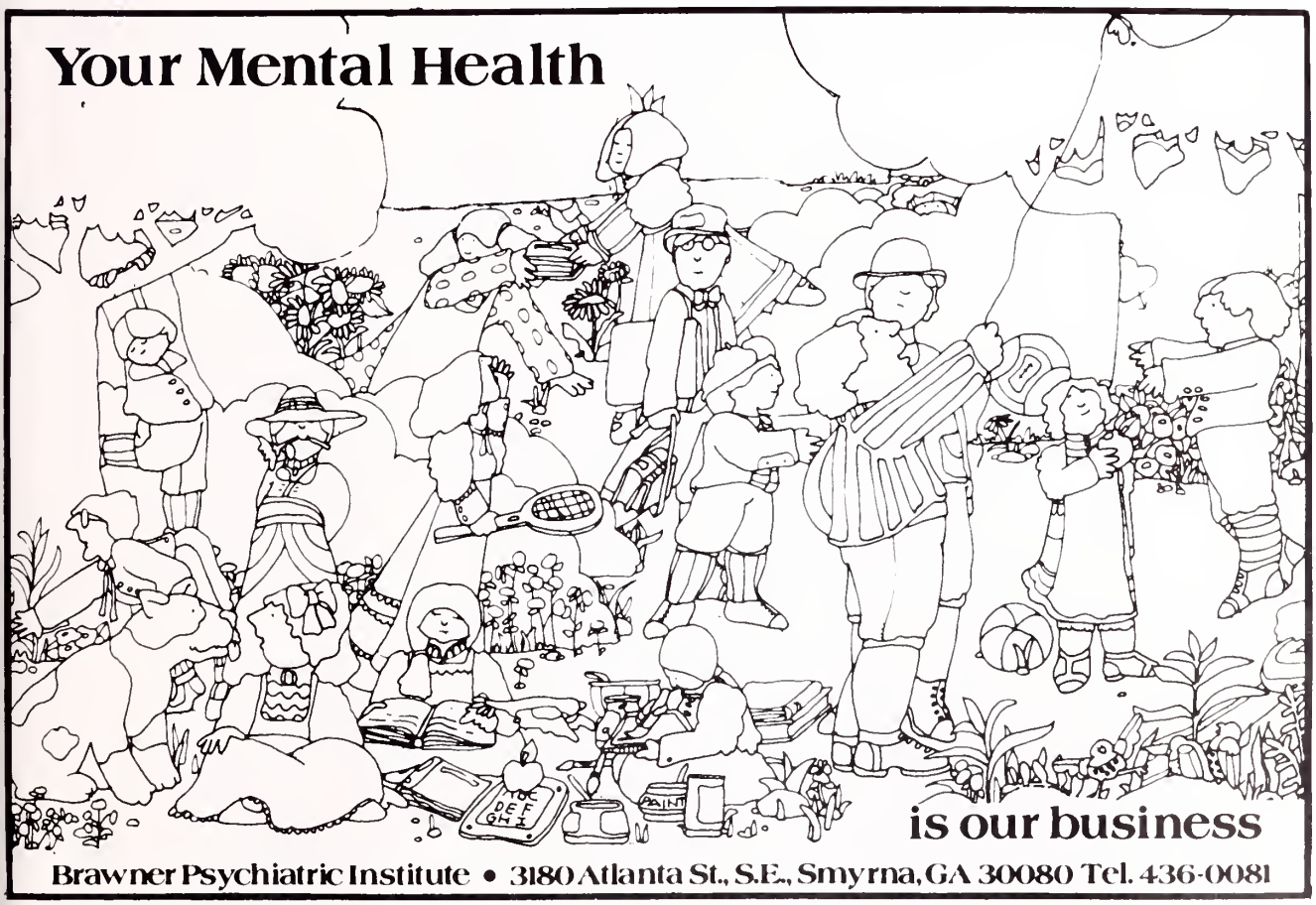
Although most tumors present with sustained (60%) or paroxysmal (26%) hypertension, 14% have absent or atypical symptoms. In approximately 90% of cases, 24-hour urinary catecholamines and/or their metabolites will be elevated, substantiating or suggesting a clinical diagnosis.

Radiology plays a very important role in evaluating the patient with a suspected pheochromocytoma. It is a rare tumor that remains undetected if IVP, CT, and arteriography are performed. Radiographic examination is also important in determining malignancy. The most frequent sites of metastases can be well evaluated with appropriate radiographic and isotope studies.

Preparation for and awareness of the possibility of cardiovascular crisis in patients with potential pheochromocytoma during arteriography is stressed.

References

1. Witlen DM, et al. *Emmett's Clinical Urography*. W.B. Saunders Co, 1977; II: 1700-1761.
2. Robbins SL. *Pathologic Basis of Disease*. W.B Saunders Co, 1974; 1316-17.



editorial
editorial
editorial

Doctor-Nurse-Patient — An Eternal Triangle

We often hear the term "eternal triangle" bandied about. It may be applied to a variety of situations ranging from the ridiculous to the sublime.

There is one eternal triangle in the practice of hospital medicine upon which we are daily dependent. Much lip service has been given to it, but in recent years its structural integrity, by all three of its elements, has come into question more frequently than any of us would like to admit. This triangle is the very close, ongoing, dynamic relationship that must exist between doctor, patient, and nurse in the setting of a hospital-treated illness.

We have no difficulty defining the goal of our common mission. It is simply to give all ill patients the best and most effective treatment available to insure their survival. We are blessed with the most advanced technological back-up system to date. Hardly anything has been overlooked in providing us with efficient diagnostic and therapeutic facilities. The availability of disease-specific medications continues to expand at a remarkable rate.

When hospital nurses understand what we need in the care of our patients, why we need it, and what our management plans are, they become invaluable allies in the framework of patient management. It is our responsibility to support this alliance.

And yet, in the midst of such plenty, there is a malfunction at the very heart of the system — and it involves the key people who make it go. If I can believe what numerous nurses have confided to me in private discussions, there is often a blatant lack of communication between doctor and nurse regarding the ongoing management of the ill patient. All too often, a doctor will come to the hospital floor, look at a patient's chart, go in to see the patient, then come back out, make notations on the chart — and leave. In such instances the doctor loses and the nurse loses — but the ultimate and most hurting loser is the patient.

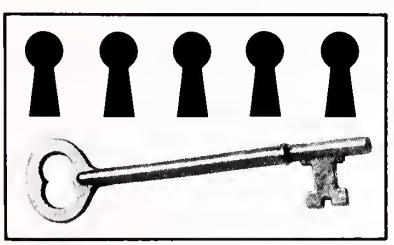
No physician in my acquaintance willfully wants to exclude a helpful nurse from the active treatment arena of an ill patient. We want and need all the help we can get from the observations of our nursing colleagues. They are capable and willing observers of the ill patient during our absence from the treatment floor, which is usually 23 out of 24 hours daily. And yet how many of us, when we arrive on the floor in the course of our busy rounds, *actively seek out* the floor nurse assigned to our patient? These key professionals are more than willing and able to share with us important, up-to-the-minute information relating to our patients that we may never see recorded

on the chart. We must give them this opportunity. While receiving valuable information from them, we can share our evaluation of the patient's clinical situation. We can outline our updated plans for over-all treatment and for coping with the numerous small problems that arise from day to day. When the nurses understand what we need in the care of our patients, why we need it, and what our management plans are, they become invaluable allies within the framework of patient management.

When we as physicians remind ourselves of the facts of hospital life as we have known since we started to practice, then we will recognize that we daily need our nurses help and input as much as they need ours. Ultimately, it is the ill patient who needs and expects us as physicians and nurses to work harmoniously together in an atmosphere of mutual respect and cooperation. In this manner we can deal promptly and efficiently with illnesses that cause unwanted disruption in their lives.

Edgar Woody, Jr., M.D.

MAKING THE TOUGH DECISIONS



A budget-management report from United Way

At United Way, volunteers carefully review the budgets, operating patterns and track record of agencies asking to become part of the United Way organization.

They scrutinize the various functions performed by the agency, look at the kinds of people it helps, and evaluate its success in delivering its services.

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The answer to this question is often complex. And sometimes it can be an agonizing decision to admit one agency instead of another.

The people decide

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The Creation and Termination of the Physician-Patient Relationship: The Physician's Options

C. SCOTT GREENE, *Atlanta**

THE SNEER you notice on your patient's face as you prescribe prolonged bed rest leaves you a bit troubled. Your concern mounts as he storms out of your office muttering under his breath about high fees and bum advice. Certain that he will ignore your advice this time, just as he has ignored your advice in years past, and also certain that, as always, he will be delinquent in paying you for services rendered, you are annoyed at his irresponsible behavior and fearful of the potential consequences. As you turn to examine your next patient, you can only sigh and wonder what home remedy he will actually use to cure this particular malady; you also wonder whether you are legally or ethically bound to continue treating him.

Contrary to popular belief, physician-patient relationships, once entered into, are not cast in stone. The relationship begins only when you agree, either expressly or by implication, that it should. More importantly, it can be terminated by you unilaterally for a number of legitimate reasons, ranging from fear of legal action by vindictive patients who choose to ignore your sound advice to economic necessity resulting from repeated failures by patients to pay their bills.

A review of Georgia law and AMA guidelines reveals the proper and legally acceptable means in which the physician-patient relationship is both created and terminated. An awareness of these procedures can serve to allay the concerns of the physician beset with an uncooperative patient and heighten the trust inherent in the very nature of the physician-patient relationship.

Creation of the Physician-Patient Relationship

A physician is not required to treat every patient that walks through his door, according to Georgia law. The general rule in Georgia is that a physician-patient relationship is only created when a patient seeks the assistance of a physician and the physician responds by undertaking to treat him.[1] By no means is the physician obligated to render treatment every time it is requested, and mere knowledge of a patient's condition does not rise to the level of a physician-patient relationship.[2] Only where the physician actively undertakes to render medical assistance of some variety to the patient will the physician-patient relationship actually come into being. Mutual agreement is, therefore, a prerequisite — "[t]he relationship is a consensual one."[3]

The emergency situation is an example of a particularized application of the general rule. Certainly, administering first aid in emergency situations is the ethical

* Prepared at the request of the Medical Association of Georgia. Mr. Greene is a summer associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

obligation of every licensed physician. For that matter, public hospitals, because they receive public funds, have a *legal* obligation to render aid.[4] The AMA has taken the position, however, that the rendering of medical services in emergency situations does not of and by itself create a physician-patient relationship.[5] The physician is following the dictates of his oath in treating emergency patients and, as a result, has no opportunity to decline treatment in order to avoid a relationship. Of course, in administering emergency treatment, the physician must "use due skill and care,"[6] but the emergency situation is *not* a consensual one and thus does not, under Georgia law, create a relationship. Moreover, under the Georgia "Good Samaritan" statute (*Ga. Code Ann.* §84-930), a physician rendering care in an emergency situation is immune from liability as long as he or she acted in good faith.

Termination of the Physician-Patient Relationship

Once the physician consents to render medical treatment in the normal (non-emergency) situation and the physician-patient relationship begins, the patient does not have complete, total control over the length of this relationship. The physician is neither legally nor ethically bound to provide medical services to any particular patient for the length of time as the patient sees fit. If, in the judgment of the physician, the situation so warrants, the relationship may go no further than the patient's first visit.

Without question, nearly every physician, over the course of practicing medicine, will be confronted with patients who either fail to follow advice or are perpetually delinquent in paying their bills. In either situation, the physician may be justified in terminating the relationship. Continuing to treat and counsel an irresponsible or delinquent patient may compound an already difficult situation, and may impose emotional and perhaps financial strain on the physician. This unhealthy relationship may also raise legal problems.

Praying that the patient will quietly go away is certainly not the most effective means of terminating the physician-patient relationship; nor is ignoring phone calls or failing to answer letters. Rather, adherence to a short and simple procedure — one which has been sanctioned by Georgia courts — can be utilized to terminate a troublesome physician-patient relationship with few ruffled feathers.

Under this procedure, the physician has the option of either giving the patient reasonable notice of his intention to withdraw or providing the patient with a competent physician to replace him.[7] The precise meaning of "reasonable notice" depends, of course, upon the circumstances of the particular case. According to the AMA, the factors to be taken into consideration are the size of the community, including the number and availability of other physicians, and the seriousness of the patient's condition.[8] For example, the patient in Dahlonega with a heart condition would require earlier notice than the one in Atlanta with a sprained finger. Alternatively, rather than give reasonable notice, the physician has the option of recommending another physician to take his place. The substitute, however, must be a "fully capable physician"[9] with a good reputation in the community. Whichever means of termination is chosen, the physician should offer to continue to treat the patient for a limited period of time until a competent substitute physician is located.

As a final precaution, the "reasonable notice" requirement should be satisfied through the use of a simple, straightforward letter of withdrawal.[10] Oral communication of withdrawal can be difficult for the physician and misinterpreted by the patient, and can lead to the temptation of using the physician's medical assistant as a buffer to terminate the relationship. Since it is the physician who initiates the relationship, it should be the physician — not the medical assistant — who terminates that relationship.

In terms of structure, the letter need be no more than two paragraphs in length, outlining the intention to withdraw and the reasons for so doing. In its closing, as a matter of courtesy and professional responsibility, the letter should offer to con-

tinue treatment until a substitute physician is found and offer to provide the next physician with a case history of the patient. However structured, the written notice should terminate the physician-patient relationship in clear and unambiguous language, thereby providing the physician with a high degree of legal protection.[11]

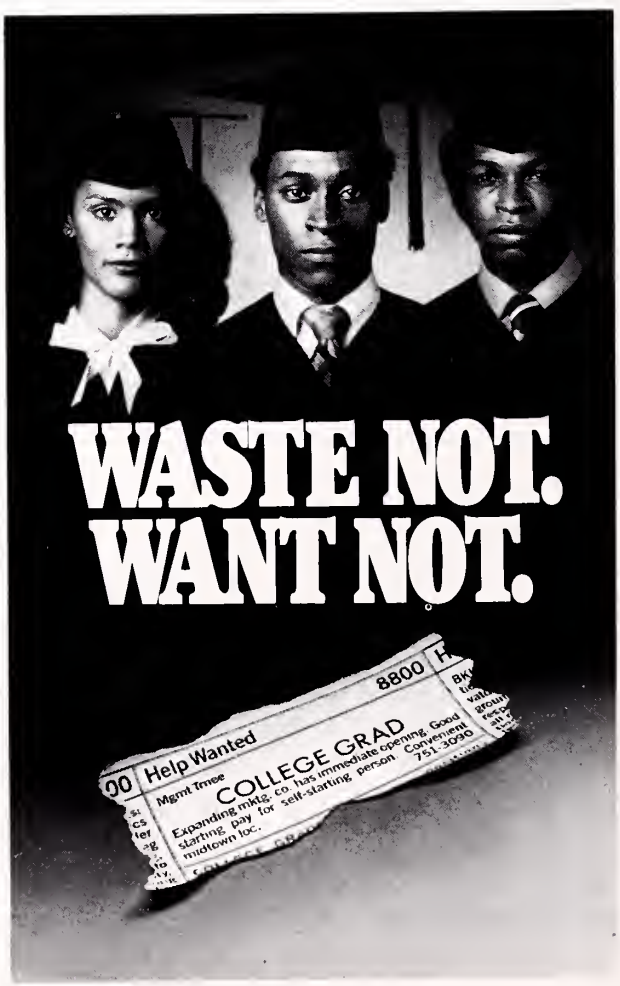
It should be noted that the physician who fails to give his patient reasonable notice or find him a reputable substitute before withdrawing will be viewed as having abandoned his patient under Georgia law. Such an omission, whether or not intentional, is considered "a culpable dereliction of duty"[12] by the Georgia courts. If the patient's condition is aggravated as a result of this negligence, the physician can be held liable for damages.[13]

Conclusion

Contrary to popular belief, the physician does have some control over the physician-patient relationship. Although a patient may either expressly or by implication request medical assistance, a relationship is not created until the physician undertakes to render treatment. If the patient fails to heed medical advice or to pay his medical bills, the physician can terminate the relationship by either giving his patient reasonable notice of withdrawal or offering to provide the patient with an alternative physician. If the physician opts to give notice, written notice in the form of a letter is highly recommended. Overall, this formalized procedure is both efficient and legally enforceable, leaving little doubt that the physician-patient relationship has been terminated.

Notes

1. *Buttersworth v. Swint*, 53 Ga. App. 602, 603-04 (1936). 2. *Id.* at 604. 3. *Id.* at 603.
4. *Williams v. Hosp. Auth. Hall Cty.*, 119 Ga. App. 626, 627 (1969). 5. AMA MEDICOLEGAL FORMS 1 (1973).
6. *Id.* 7. *Norton v Hamilton*, 92 Ga. App. 727, 731 (1955).
8. AMA MEDICOLEGAL FORMS 2 (1973). 9. *Kenney v. Piedmont Hosp.*, 136 Ga. App. 660, 663 (1975).
10. AMA MEDICOLEGAL FORMS 2-3 (1973). 11. *Id.* at 2.
12. *Pritchard v. Neal*, 139 Ga. App. 512, 515 (1976). 13. *See Carroll v. Griffin*, 96 Ga. App. 826, 828-29 (1958).



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For the pain of osteoarthritis the proven power of

Motrin®

ibuprofen, Upjohn

600 mg Tablets

One tablet t.i.d.

Please see the following page for a brief summary of prescribing information.

Upjohn

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Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels.

Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation,* gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

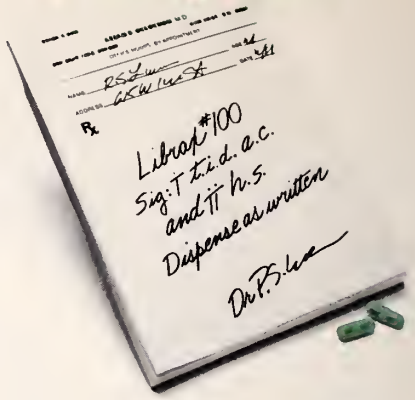
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MED B-5-S

J-9042-4

July 1981

Specify Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

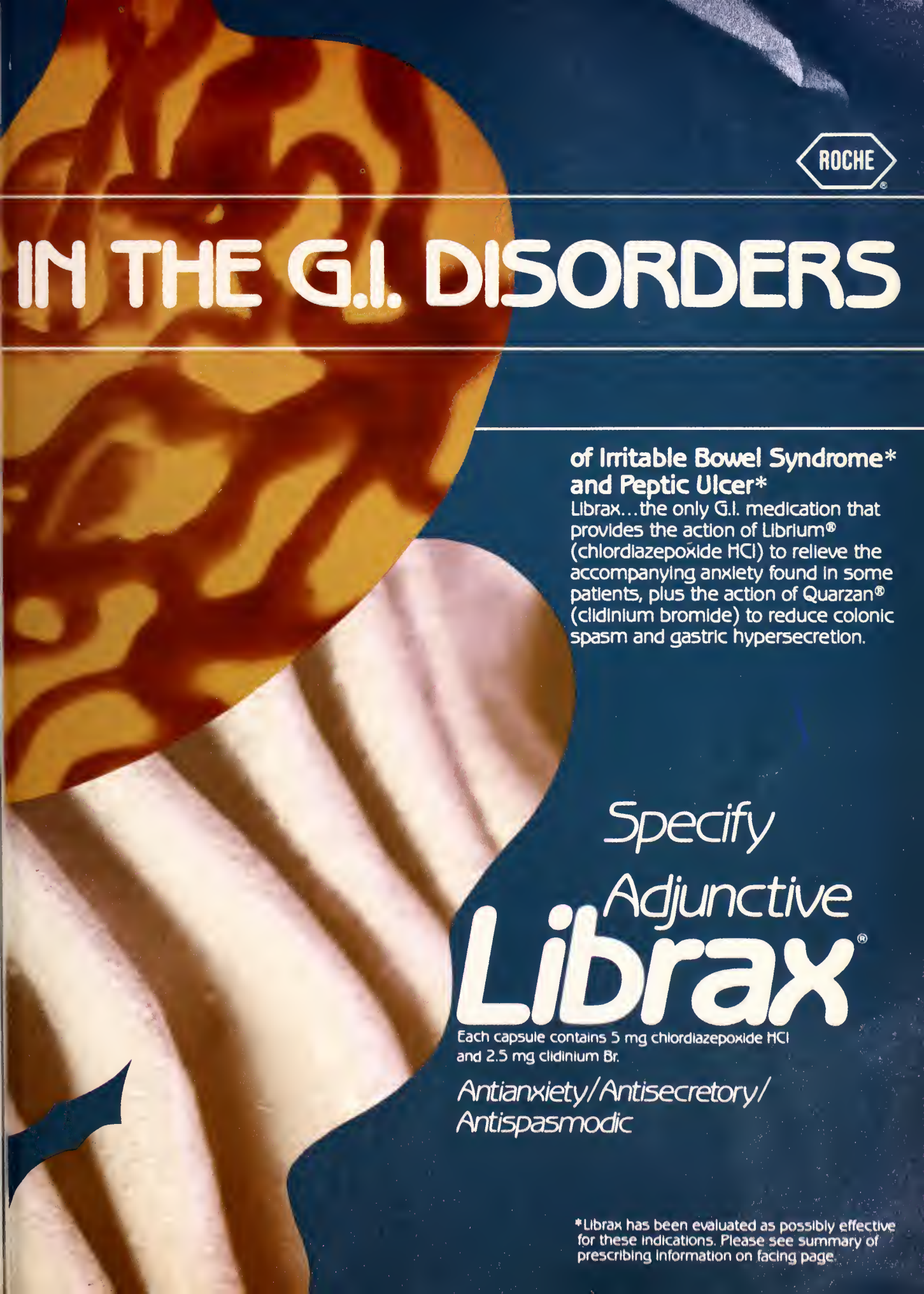
As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered, isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Manati, Puerto Rico 00701



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IN THE G.I. DISORDERS

of Irritable Bowel Syndrome* and Peptic Ulcer*

Librax...the only G.I. medication that provides the action of Librium® (chlordiazepoxide HCl) to relieve the accompanying anxiety found in some patients, plus the action of Quarzan® (clidinium bromide) to reduce colonic spasm and gastric hypersecretion.

Specify

Adjunctive

Librax®

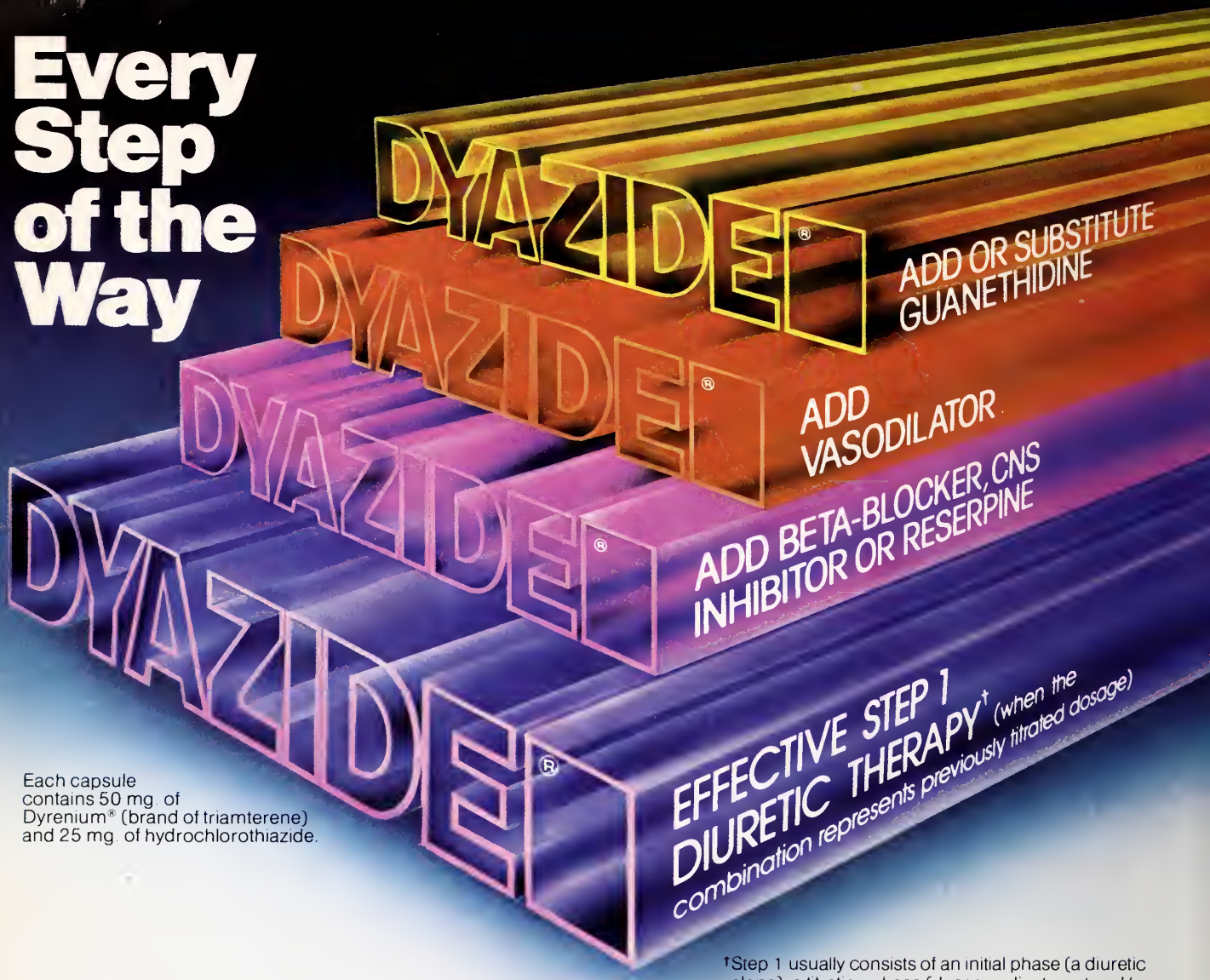
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/ Antispasmodic

*Librax has been evaluated as possibly effective for these indications. Please see summary of prescribing information on facing page.

In Hypertension*...When You Need to Conserve K^+

Every Step of the Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS comptex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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Adjuvant Chemotherapy for Breast Cancer — Questions and Answers

TROY H. GUTHRIE, JR., M.D.*

THE FOLLOWING represents a factual conversation between Doctor X and Mrs. Y, who underwent a mastectomy 2 days earlier. Mrs. Y's pathology report indicated 17 out of 24 nodes positive for breast cancer. This article begins in the middle of a conversation. It is hoped that this conversation will serve as a role model for counseling patients who need adjuvant chemotherapy for breast cancer.

Mrs. Y — *Doctor, you told me yesterday that you removed all the cancer. Why are you now talking about chemotherapy?*

Doctor X — What I told you was that I removed all the cancer I saw and that the pathologist confirmed that my surgical margins or edge of the tissue removed was free of cancer cells. As your doctor, however, I know not only from my own experience but also from the published experience of other physicians that microscopic, unseen cancer cells do remain in many women like yourself who underwent successful surgery. Unfortunately, these cancer cells, which are either at the site of surgery or more likely systemic (that is, scattered in other parts of the body), invariably grow. In fact, of women who appear cured by surgery of their breast cancer, only approximately 50% remain free of cancer.[1]

Mrs. Y — *Doctor, you said half the women are cured! Maybe I'm one of the lucky ones. Is there some better way to tell my chances of being cured?*

Doctor X — Yes, there is. We know that the key to predicting recurrence of breast cancer is the presence or absence of cancer cells in the lymph glands under the arm where your surgical wound extends. If no tumor cells are found in the glands on microscopic examination, then the majority of these women are considered cured. If tumor cells are found, however, then risks of the tumor recurring increase in proportion to the number of lymph glands involved. In fact, if four or more lymph glands are involved, then approximately three quarters of the women will have a recurrence and ultimately die of cancer.[2] You had 17 glands involved.

Mrs. Y — *Doctor, this is frightening! I'm 55 years old. Am I too old to benefit from further therapy?*

Doctor X — Well, until recently you would have been considered unlikely to benefit from adjuvant chemotherapy because of your age and menopausal state. New evidence from cancer investigations suggests that all women, regardless of their age or menopausal state, can benefit from chemotherapy if full doses of drugs are used. It seems that in the past, poor results in older women may have been due to

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the tendency to give them less than full doses of drugs. I suppose they hoped to avoid side effects, but unfortunately, this approach results in little or no benefit.[3]

Mrs. Y — *I have heard that chemotherapy is terrible, causing you to be sick and your hair to fall out. Is this true?*

Doctor X — I'll be honest. Side effects do occur, including hair loss usually necessitating the use of a wig. Other side effects include gastrointestinal upsets such as nausea and even vomiting on the day the drugs are started. Depression of the blood count occurs with resultant loss of strength and mildly increases the risks of infection. Overall, I and other physicians have noted that side effects are tolerable and end when chemotherapy ceases."[4]

Mrs. Y — *You talk of risks of chemotherapy, but just what would I gain from taking these risks?*

Doctor X — As things stand now, I know that since you had more than four lymph glands involved by the tumor, you have approximately a 75% chance of having a relapse and dying of cancer in 5 years. Adjuvant chemotherapy is a new form of treatment and still requires years of further study. However, women receiving chemotherapy live longer without any signs of cancer than comparable women who do not receive chemotherapy.[4] This does not necessarily mean more cures, but it is promising.

Mrs. Y — *Hmmm . . . this is encouraging, but I have a family and a job. How much time out of my life will this take?*

Doctor X — All of the treatment is given as an outpatient in an office visit, usually one to two times a month. The length of time in the office is about the same as any visit. This therapy is customarily given over approximately a 1-year period and then stopped.

Mrs. Y — *I just don't want to lose my hair. What about hormone therapy? I've heard some women take hormones for breast cancer.*

Doctor X — This is true, but hormone therapy has only proven benefits in treating women who already have proven recurrence — cancer that has spread beyond local treatment means. In adjuvant settings experiments are being conducted, but no proven value exists for giving hormones to women like you.

Doctor X — *Hmmm . . . Well, how about X-ray treatment?*

Doctor X — Radiation therapy, like surgery, only treats a local area. The whole body cannot be irradiated due to severe toxicities. Radiation therapy clearly reduces your risk of having recurrence in or near the surgical scar, but study after study has failed to show any extension of life or disease-free survival.[5]

Mrs. Y — *Well, I'll talk to my husband tonight and tell you my decision tomorrow.*

One day later, the third day postop

Mrs. Y — *Doctor, my husband and I agree that I need to try adjuvant chemotherapy. When should I start?*

Doctor X — We'll allow your wound to heal and recover from the immediate effects of surgery. This usually takes 2-3 weeks. Too much delay may allow tumor cells, if there are any, to grow, thus lessening the chances that chemotherapy will benefit you.

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Preventing Atherosclerosis Through Exercise and Control of Blood Coagulation

JOHN McCLELLAND, M.D., and GERALD F. FLETCHER, M.D.,
*Atlanta**

THE ROLE OF EXERCISE in the primary prevention of atherosclerosis has received considerable attention in recent years and continues to be a topic of active discussion. The earliest scientific indications that physical activity might provide significant protection against coronary atherosclerosis and its manifestations came largely from the epidemiologic studies of Paffenbarger, et al.,[1] and others. These data have led to further revealing retrospective and prospective studies both in animals and in humans in an effort to define (if any) the preventive roles of exercise and other currently recognized methods of risk factor modification in atherosclerosis.

The Role of Blood Platelets

There is a great deal of interest and research activity in the role of blood platelets in promoting intravascular thrombosis. The clinical applicability of this information lies in the prevention or retardation of thrombosis by altering platelet activity. Although the pathogenesis of these effects is not clearly defined, data are being collected and scientifically applied to understand the clinical phenomena.

Doyle, et al.,[2] have reported shortened platelet survival in coronary disease patients and correlated the Chromium-51 labeling technique with assays of platelet specific proteins, namely platelet factor-4 and beta-thromboglobulin, as indicators of intravascular platelet activity. These proteins, along with others, are released from the platelet alpha granule following platelet adherence and comprise part of the release reaction. Increased levels of these platelet proteins are thought to indicate stimulated platelet activity. Other researchers are attempting to refine these assays in an effort to provide more sensitivity and specificity in the determination of platelet activity.

Realizing the role of the platelet in thrombosis and the importance to be able to accurately quantitate its activity in the setting of atherosclerotic vascular disease, Mehta, et al.,[3] have shown an aortic-to-coronary sinus concentration gradient of platelets and decreased aggregation activity in platelets from coronary sinus blood in patients with coronary atherosclerosis. Similarly, Rubenstein, et al.,[4] reported significantly elevated transmyocardial aortic to coronary sinus measurements of beta-thromboglobulin levels in patients with documented coronary artery spasm by

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cardiac catheterization versus patients with normal coronary arteries. This information strongly suggests blood platelet consumption or activation in atherosclerotic plaques and implies again that anti-platelet therapy may be beneficial.

Platelet activity in promoting intravascular thrombosis has important application in the primary prevention of atherosclerosis. The alpha granule of the platelet is known to also contain a protein termed platelet-derived growth factor or mitogenic factor. Ross, et al.,[5] have demonstrated that at sites of endothelial injury, this substance stimulates the migration of smooth muscle cells from the media to the intima and is also mitogenic for smooth muscle cells and fibroblasts. This action results in the formation of new connective tissue at the site of the vessel injury. At the site of injury caused by chronic hyperlipidemia (presumably the "fatty streak"), platelet-derived growth factor is also felt to stimulate the deposition of lipid within these recently accumulated connective tissue elements, both intracellularly and extracellularly. The process can obviously be progressive and additive, resulting in the propagation of atherosclerotic plaques. Regulation of hyperlipidemia in the control of platelet activity could provide a deterrent to atherogenesis via the mechanisms postulated in these preliminary studies.

The Effects of Exercise

The relationship between exercise and platelet activity has been defined in patients with coronary artery disease. Green, et al.,[6] demonstrated increases in platelet factor-4 following exercise in 11 of 20 patients with positive exercise tolerance tests. Eighteen of 20 patients with negative exercise tests had no post-exercise increase in platelet factor-4 over the resting levels.

Platelet release during exercise and coronary disease has been further studied by Steele, et al.[7] These investigators found that with maximum exercise testing in 22 men with coronary artery disease, there was an increased release of beta-thromboglobulin and platelet factor-4 at the point of angina but no definite increase in thromboxane. These patients were compared to 16 normal controls who, with exercise, did not have an increase in these platelet factors. In addition, the patient population was restudied after sulfinpyrazone administration, and the data suggested that this medication decreased the release of platelet factors. The results suggest that increased platelet release occurs during exercise in patients with coronary artery disease, the release correlates with the intensity of exercise, and sulfinpyrazone decreases this release.

Williams, et al., from Duke University[8] have studied platelet aggregation following cardiac rehabilitation in seven post-infarction men who had completed a 6-month cardiac rehabilitation program of exercise training. In samples of platelets drawn at rest, aggregation induced with levoepinephrine was strikingly reduced following the conditioning program in all the men. Total aggregation fell from 50 $\pm$ 26% to 11 $\pm$ 5% after training. They felt that possible mechanisms for reduced aggregation by levoepinephrine after exercise training might include platelet alpha receptor desensitization, reduced cholesterol content of platelet membranes, or altered platelet kinetics. The latter research certainly is limited because of the number of persons studied, but it does stimulate thought regarding alterations of platelet activity with exercise conditioning.

Fibrinolysis

Just as platelet activity is affected by exercise, the fibrinolytic system is also influenced. With regard to fibrinolysis, Menon, et al.,[9] reported as early as 1967 on the effect of strenuous and graded exercise and fibrinolytic activity. They noticed increased fibrinolytic activity after strenuous exercise in 58 trained athletes but to a lesser degree after moderate exercise in 10 volunteers. The increase in activity was found to persist for at least 1 hour after exercise. They also noted that to obtain the beneficial effects of exercise and prevent thromboembolism, it is not necessary to involve the endangered part of the body. Exercise of the arms, for instance, may benefit a leg encased in plaster.

Epstein, et al.,[10] however, reported an impaired fibrinolytic response to exercise in patients with type 4 hyperlipoproteinemia. Seven normal persons were studied and eight patients with type 4 hyperlipoproteinemia. Exercise greatly increased the fibrinolytic activity in six of the seven normal persons. A similar increase occurred in only one of the eight patients. These data may indicate that normal fibrinolytic activity is impaired in patients with type 4 lipid abnormalities.

Rosing, Redwood, and Epstein reported[11] the impairment of the diurnal fibrinolytic response in man with reference to the effects of aging, type 4 hyperlipoproteinemia, and coronary artery disease. They found that the marked diurnal increases in fibrinolysis observed in young normal subjects were significantly reduced in a large percent of older normal subjects and in most of these with coronary artery disease or type 4 lipid abnormalities. Although not conclusive, their findings were compatible with the hypothesis that an impairment in the responsiveness of the fibrinolytic system may be related to the development of coronary artery disease.

Most recently Williams, et al.,[12] demonstrated augmentation of stimulated fibrinolytic response to venous occlusion in patients following physical conditioning. They feel that one of the beneficial effects of habitual exercise may be the stimulation of the fibrinolytic system. This would certainly seem potentially beneficial with occlusive vascular disease.

Therefore, current data suggest that certain alterations in blood platelet and fibrinolytic activity in the coagulation process have surfaced as definite risk factors for the initiation and propagation of atherosclerosis. Perhaps there are other steps in the cascade of intrinsic and extrinsic coagulation that are of equal importance. More data are needed in this very important and potentially modifiable risk factor subset of "cardiohematology."

The topic of interventions to promote prevention, regression, or stabilization of atherosclerosis is appropriate in cardiovascular disease management today. Attention to certain coronary risk factors, namely *high blood pressure, abnormal blood lipids,* and *alterations in blood coagulation,* is very important. The importance of properly prescribed exercise in these areas has been substantiated but needs to be further investigated.

Specific Therapy

High blood pressure may be treated with a variety of drugs. Probably the greatest area of interest is in the beta adrenergic blocking agents such as propranolol, metoprolol, and nadalol. Several of these agents, in addition, have reported antiplatelet effects which may also be important in the coagulation process. Controlling blood lipids through diet and weight reduction as well as with certain drugs, such as clofibrate and nicotinic acid, has had great impact. The use of specific agents such as sulfinpyrazone, dipyridamole, and aspirin to control platelet activity and aggregation is effective in this type of management.

Lastly, physical activity in the form of physical energy expenditure is felt to be very important for continued good health especially in the role of primary prevention, i.e., stabilization regression, or retardation of atherosclerosis. Such an intervention is cost effective, usually enjoyable to the patient, and is such that, when prescribed for and tailored to the individual, may be effective in other areas of disease prevention. The latter implies, as noted before, the effects of exercise on blood coagulation, specifically with regard to platelet activity and fibrinolysis.

Current data by Armstrong, et al.,[13] in animals have provided the first evidence of effects of regression of experimental atherosclerosis on organ blood flow. These data revealed that regression produced significant hemodynamic improvement in cerebral vessels and, to a lesser extent, in coronary vessels. Certainly these data are both encouraging and thought provoking.

As we continue to become more preventive-health oriented in the 1980s, it is only logical to pursue the areas mentioned in this discussion. Certainly it is desirable to maintain a person's working and functional status before he or she is

hospitalized with severe angina pectoris or myocardial infarction which may require extensive diagnostic procedures, days of hospitalization, and perhaps coronary bypass surgery. Those in the health profession who overlook this preventive type of intervention will be omitting a relatively simple, cost effective, and enjoyable way to manage the current pandemic of atherosclerosis.

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PIA

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Director

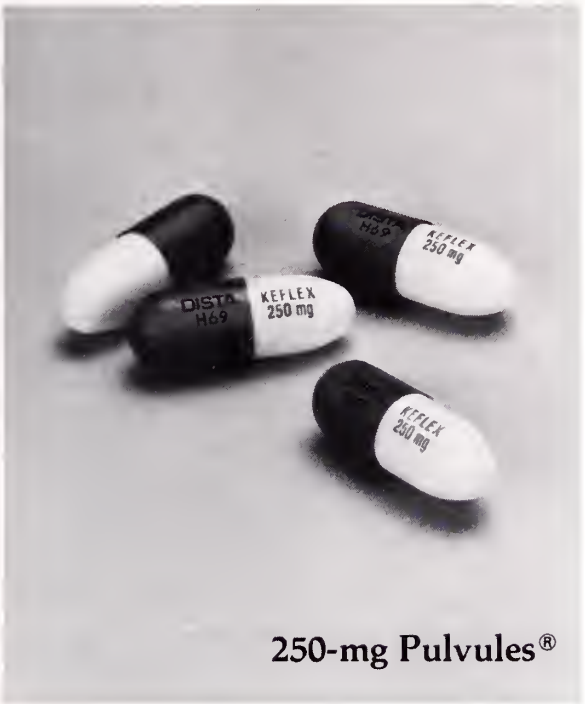
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president's letter



MAG's Risk Management Seminars — Preventive Education at Its Best

As I WRITE THIS, I am waiting in a judge's chambers to take the stand as an expert witness in a malpractice suit. It has been a hectic day, what with trying to finish rounds and other chores to make the 2-hour trip to arrive on time in court. Of course, just before I was to leave, a patient needed my immediate attention, and my schedule went predictably awry. In spite of my late departure, however, and the very best intentions of the defense attorney, I have already waited 2 hours to testify. And yet, even with the usual inconvenience I have experienced with trials, depositions, or other legal matters, this pales in significance to me when I consider that it is not I who is the defendant.

I am sure that any measures which can be taken to prevent an accusation of physician malpractice are worthwhile. One of the best such measures are the MAG-sponsored Risk Management Seminars. I have heard many good things from doctors who participated in some of the seminars already given, and I recently attended one in Hall County myself. These seminars offer the best course of prevention against litigation available to us. I highly recommend them to you and urge you to take advantage of this educational opportunity at your earliest convenience. The seminars are given throughout Georgia and can be fitted into your schedule, no matter how busy. For more information about these seminars, call MAG headquarters. Do it now — before the judge calls your name.

L. Newton Turk III M.D.

L. Newton Turk, III, M.D.
President, M.A.G.

NEW MEMBERS

Baskin, Carol G., MAA—ACT—N-2—P
1935 Cliff Valley Way, NE, Atlanta 30329

Botstein, Gary R., DeKalb—ACT—N-2—IM
2712 N. Decatur Rd., Decatur 30033

Dutt, Cyril P., Clayton-Fayette—ACT—GS
1019 Astor Ave., Forest Park 30050

Garcia, Samuel I., Oconee Valley—ACT—OBG
South Main St., Madison 30650

Goodhart, Glenn L., MAA—ACT—ID
960 Johnson Ferry Rd., Ste 243, Atlanta 30342

Harrison, Harold B., Bibb—ACT—N-2—IM/GE
655 First St., Macon 31201

Honarvar, Samad, Gwinnett-Forsyth—ACT—OTO
445 Beaver Ruin Rd., Lilburn 30247

Huber, James D., DeKalb—ACT—N-2
7650 Covington Hwy., Lithonia 30058

Jenkins, Morris L., Gordon—ACT—N-2—FP
Box 125, Calhoun 30701

Kaplan, Henry J., DeKalb—ACT—OPH
1365 Clifton Rd., NE, Atlanta 30322

Kile, Dale L., Colquitt—ACT—PD/EM
1014 First St., SE, Moultrie 31768

Kratina, Fredric K., Muscogee—ACT—GYN/P
2000 Sixteenth Ave., Columbus 31993

Liberman, Henry A., MAA—ACT—N-1—IM/CD
25 Prescott St., NE, Atlanta 30308

Lucchese, Mary C., MAA—I&R
120 Terrace Dr., NE, Atlanta 30305

Olansky, David C., MAA—ACT—N-2—D
401 W. Peachtree St., #1645, Atlanta 30308

Peroutka, Kathryn, MAA—N2—IM/HEM/ON
35 Collier Rd., NW, Ste. 775, Atlanta 30309

Peterson, David A., Muscogee—ACT—IM/NEP
St. Francis Medical Park, 2300 Manchester Expressway, Columbus 31904

Ritter, Linda B., C. W. Long—N-2—AN
755 Riverhill Dr., Athens 30606

Spector, Robert H., MAA—ACT—N/OPH
1365 Clifton Rd., NE, Atlanta 30322

Stappenbeck, Richard A., Clayton-Fayette—N-2—N
405 Arrowhead Blvd., Jonesboro 30236

Steger, David J., Meriwether-Harris-Talbot—N-2—FP
19th Family Practice Clinic, Ft. Benning 31905

Stevenson, Charles E., Jr.,
Carroll-Haralson—ACT—N-2—PD
202 Croft St., Carrollton 30117

Webster, Samuel E., MAA—N-2—ID
993-D Johnson Ferry Rd., Ste. 215, Atlanta 30342

Werner, Paul T., Bibb—ACT—FP
Mercer Univ. Sch. of Med., Macon 31207

PERSONALS

First District

James Alexander, M.D., cardiac thoracic surgeon, moved his practice to 5400 Sutlive St., Ste. 1, in Savannah.

In private practice with Cardiology Associates of Savannah, P.C., **Sidney J. Bolch, III, M.D.,** was elected to Fellowship in The American College of Cardiology.

Cardiologist and internist, **Rudolf A. Colmers, M.D., F.A.C.P., F.A.C.C.,** relocated his practice to the Candler Professional Bldg. at 5354 Reynolds St., Ste. 222, in Savannah.

A recently-elected affiliate member of the American Society of Colon and Rectal Surgeons, **Carl Rankin Jordan, M.D.,** of Savannah, has been selected for inclusion in Volume IV (1981) of "The International Who's Who of Intellectuals," a publication by the International Biographical Center in Cambridge, England.

A. John Mooney, Jr., M.D., was honored in July at the Second Annual Community Banquet in Statesboro. Dr. Mooney is a pioneer in the treatment of alcohol and drug addiction. In 1971, he founded one of two accredited institutions in America for the treatment of alcohol and drug addiction — Statesboro's Willingway Hospital.

Third District

Horatio V. Cabasares, M.D., general surgeon, moved his practice to Perry on July 1.

Robert R. Currier, M.D., completed his residency in family practice at the Medical Center in Columbus, and is practicing in Nashville, Tennessee.

James G. Herron, M.D., and **Wallace D. Mays, M.D.,** both from Americus, discussed the impact of stress at the first of a series of discussions at the "Lunch and Learn" program presented by the Lake Blackshear Regional Library.

Internist, **James D. Huber, M.D.,** opened an office at 7650 Old Covington Hwy. in Lithonia.

In June, **Carla Samson, M.D.,** family practitioner, graduated from the Medical Center's Family Practice Residency Program in Columbus. She is the first woman to have done so.

Fifth District

On June 25, **David F. Apple, M.D.,** of Atlanta, was honored with a feature article in the *Atlanta Constitution*. The article dealt with Dr. Apple's involvement in sports medicine.

Richard D. Franco, M.D., Atlanta, was selected on June 1 for a 2-year term as chairman, Department of Medicine, St. Joseph's Hospital.

Bernard S. Lipman, M.D., Atlanta cardiologist, was chosen to participate in the first Israel Bonds medical-hospital study tour to Israel. As clinical professor of medicine in cardiology at Emory University Medical School, Dr. Lipman is one of 30 physicians and hospital administrators selected from across the U.S.

Sixth District

Robert E. Cato, M.D., of Macon, was selected for Fellowship in the American College of Radiology and will receive his award at the College's annual meeting in Las Vegas in September.

J. Robert Fountain, M.D., completed his residency in family practice at the Medical Center of Central Georgia in Macon and opened an office in Forsyth on July 13.

Eugene R. Long, M.D., of LaGrange, was recently certified by the American Board of Internal Medicine.

The Medical College of Georgia's Department of Family Practice dedicated the family practice library to **Thomas A. Sappington, M.D.,** of Thomaston.

Benjamin S. Anderson, Jr., M.D., of Cedartown, has been reappointed to the State Board of Human Resources for a 5-year term. Dr. Anderson was first appointed in 1972. The Board sets policy for the Georgia Department of Human Resources.

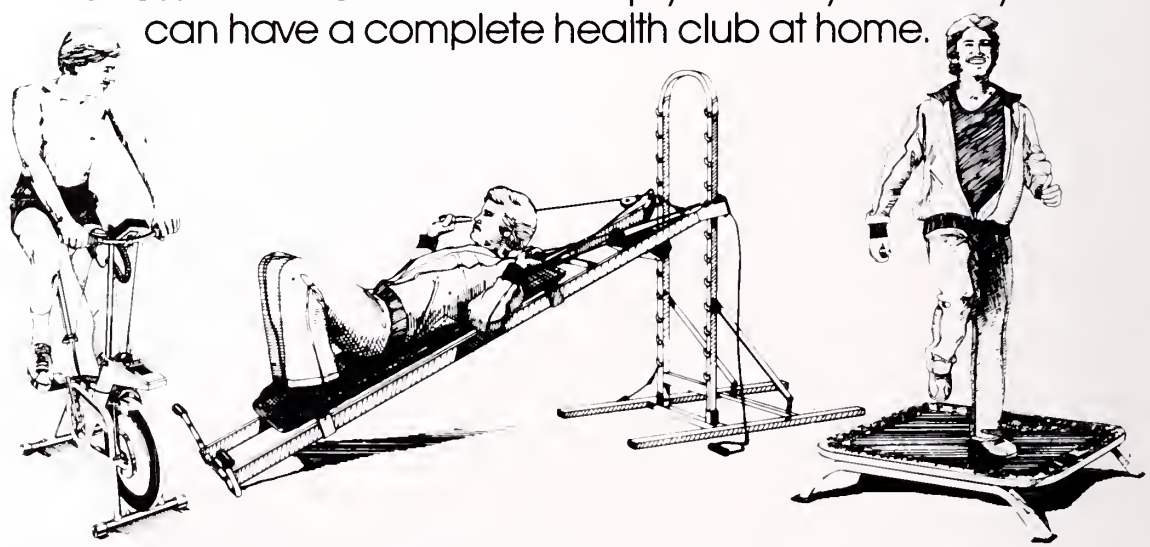
Emmett R. Bishop, Jr., M.D., has joined the Harbin Clinic staff in Rome, practicing psychiatry and psychosomatic medicine.

SOCIETIES

The **Walker, Catoosa, Dade County Medical Society** met on June 30, 1981. A plan was presented by the county medical auxiliary to tape 5-minute interviews with physicians on health-related matters to broadcast on local radio stations. The motion passed.

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Classifieds

RATES AND DATA: Space in this section is sold on a per-word basis as follows: **members**—$10.00 for the first 25 words; $.25 per word for each additional word. **Non-members**—$20.00 for the first 25 words; $.25 per word for each additional word. *Charges are payable in advance*. Copy must be typed and received by the Publisher no later than the 12th of the month preceding publication. Blind box numbers are available at an additional charge of $1.00 per insertion. For more information, contact *Journal* staff at 938 peachtree St., NE, Atlanta, GA 30309-3990 telephone (404) 876-7535. INWATS in Georgia 800-282-0224.

PHYSICIANS WANTED

Industrial Physicians, Associate Medical Director, and **Staff Physician** needed for expanding Atlanta Industrial Clinic. Send resume to Box 5-A, c/o the *Journal*.

General Practitioner. Join established clinic in West Central Georgia. Four-hospital area, clinic fully staffed and equipped. Competitive salary and benefits. Contact Mike Langford, Suite 323, Doctors Bldg., Columbus, GA. PH: 404-322-8863.

Physician needed to lease fully-equipped clinic in downtown Atlanta, (Edgewood Emergency Clinic). Near Grady Hospital and Ga. State University. 404-525-4865.

Emergency Medicine Opportunities: Clinical and Directorship positions available in central and coastal Georgia. Excellent compensation, paid malpractice insurance, and flexible scheduling according to individual needs. For details, send credentials in confidence to Mary Obsitnik, 9100 Purdue, Suite 119, Indianapolis, IN 46268, or call collect 317-875-7518.

SITUATION WANTED

Board Certified Psychiatrist, extensive clinical experience. Prefers community program, but would consider other quality clinical opportunity. Box 8-A, c/o *Journal*.

FOR SALE

General practice for sale, 35 miles east of Atlanta. Fully equipped, X-ray equipment, records will introduce. MUST SELL. Call 404-353-8910 daytime or 404-725-5776 in the evening.

Picker Echoview IX-D Ultrasound, EDC Grey Scale Scan Converter, mobile stand, 2.25 and 1.6 mHz LIF transducers, Polaroid camera — $5,000. Matrix Video Imager 4 with cassettes and foot switch — $1,500. New Reliance Model 25 Hydraulic examining table with Trendelenberg (New, $1,700) now — $1,000. ADR model 2130 Linear Array Real Time Ultrasound, electronic caliper, freeze frame, Polaroid camera, 5.0 mHz and 3.5 mHz transducers, transporter case, 1-year old, in perfect condition — $20,000. Call 404-353-1505 or write Box 9-A, c/o *Journal*.

MEETING ANNOUNCEMENT

Snowmass/Vail "MEP" *Ski* Seminar on Management Enrichment for the Health Professional. Ski Snowmass, Colorado, the week of Dec. 19, 1981, or the week of Mar. 20, 1982; or ski Vail, Colorado, the week of Feb. 20, 1982. Seminars conducted by noted doctors and management specialists to enrich your life. Seminars comply with IRS rules to make trip expenses deductible for doctor and spouse. For brochure and lodging information contact: M.E.P., An Education Corporation, 906 Cooper Ave., Glenwood Springs, CO 81601; or call (800) 525-3402.

REAL ESTATE

Beautiful Glass Pavilion House with 8 acres of land north of Atlanta. Only home like this in the state. Huge rooms, 3 fireplaces, one in massive kitchen, full basement. Contact George Hendrix, Execu-Systems, 5801 Peachtree Rd., Dunwoody 30342. 404-256-0940.

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Report of the Board of Directors — Association Budget

Jack A. Raines, M.D., Chairman

	Budget 1980-1981	*Income & Expense Est. to 5/31/81*	*Proposed Budget 1981-1982*
Income			
Dues Collection-4,180 MD's	$ 940,500	$ 961,084	$ 974,250
Interest & AMA Refund	75,000	142,650	100,000
Journal Advertising	55,000	77,888	78,000
Newsletter (Roche)	3,000	3,000	3,000
Rental Income	49,500	38,645	
Journal Subscriptions	5,000	4,935	6,500
Computer Income	247,718	202,065	253,508
Total Income	$1,375,718	$1,430,267	$1,415,258
Expenses			
Retainers, Legal Costs	48,600	38,953	48,600
Journal	111,764	103,745	112,490
Membership & Public Services	119,133	114,586	142,645
Committees	173,150	182,434	209,630
Salaries, Fringe Benefits, Payroll Tax	452,231	435,477	517,247
Management Services	32,650	25,403	32,600
Association Activities	45,480	37,515	43,780
Building Costs	153,531	149,110	114,962
Computer Expense	220,582	208,578	252,320
Total Expenses	$1,357,121	$1,295,801	$1,474,274
Excess Income over Expense	18,597		(59,016)*
Total Expenses	$1,375,718		$1,415,258
	1980	*1981*	
Current Cash: C & S Checking	$ 68,231	$ 57,480	
C & S Certificates	1,052,747	1,287,643	
	$1,120,978	$1,345,123	

* Transfer from undesignated balance if needed.

Legal Costs and Retainers			
Legal	$ 35,000	$ 25,388	$ 35,000
Insurance Actuary	10,000	9,965	10,000
Other (Franklin)	3,600	3,600	3,600
Total	$ 48,600	$ 38,953	$ 48,600
Journal			
Salaries	$ 26,257	$ 26,257	$ 32,100
Fringe Benefits	3,733	3,733	3,975
Payroll Taxes	1,687	1,783	2,215
Printing and Paper Costs	60,000	58,383	62,000
Photo Processing	450	410	450
Advertising Commissions	9,000	2,280	
Advertising Promotion	1,000		500
Postage & Copyright	4,400	5,976	5,400
Subscriptions & Dues	262	155	200
Clipping Service	350	378	450
Artwork	3,500	3,592	3,700
Mailing Labels	450	215	400
Travel	675	583	1,100
Total	$ 111,764	$ 103,745	$ 112,490
Membership and Public Services			
WATS Line Outward			$ 4,000
WATS Line Inward	$ 4,200	$ 7,588	5,000
Telephone	21,900	22,100	21,900
Postage	20,000	19,560	28,900
Roster	8,000	8,813	9,000
Travel — President	5,500	5,420	5,500
Travel — President-Elect	3,200	2,570	3,200
Travel — Past President	3,200	1,147	3,200
AMA Delegate Costs:			
Caucus Breakfasts	1,300	1,216	1,400
MAG Headquarters Suite	2,500	3,156	3,300
Travel — AMA Delegates & Alternates	15,896	13,023	13,720
Rogers for Speaker Campaign			2,500

	Budget 1980-1981	*Income & Expense Est. to 5/31/81*	*Proposed Budget 1981-1982*
Travel — Officers	5,012	1,830	3,630
Southeastern Coalition Assessment	800		
Southeastern Coalition Suite	2,000	2,388	2,600
Interprofessional Council	125		125
AMSA Travel to MAG Annual Session	300	300	300
AMSA Travel Cost	650	600	650
Travel — Staff	23,000	23,600	28,520
State Medical Education Luncheon	250	241	300
AMA Leadership Conference (2 MD's)	1,300	1,034	1,400
Annual Session Proceedings			3,500
Total	$ 119,133	$ 114,586	$ 142,645
Committees			
Access to Health Care	$ 4,040	$ 3,480	$ 4,000
Annual Session	10,895	11,590	11,595
Auxiliary to MAG — Health Careers	19,280	18,602	20,300
Disabled Doctors Program	75,000	74,889	70,190
Doctor of Day Program			4,900
GaMPAC	8,700	8,700	10,450
Health Planning	500	308	500
Liaison — Dept. of Human Resources	600		
Education	3,901	1,369	4,220
Legislation & Bulletin	13,594	25,991	14,400
Maternal & Infant Welfare			1,000
Medical Aspects of Sports	500	500	500
Composite State Board of Medical Examiners	400		400
Nutrition	500	410	1,000
Physician Involvement			3,300
Physician-Lawyer Liaison	1,250		
Prison Health Care	4,365	4,365	35,365
Professional Liability Insurance	550	619	700
Public Relations	11,450	9,945	8,000
Scientific Assembly	8,420	8,316	10,310
Women in Medicine *Newsletter*	4,500	8,650	6,100
Bohler Committee			2,400
Allied Health	5		
MAG Foundation	4,700	4,700	
Total	$ 173,150	$ 182,434	$ 209,630
MAG Staff Salaries, Fringes & Payroll Tax			
Executive Staff	$ 212,407	$ 204,370	$ 205,860
Fringe Benefits	26,662	22,173	28,260
Payroll Tax	12,206	12,206	11,510
Total Executive Staff	$ 251,275	$ 238,749	$ 245,630
Support Staff	78,650	77,853	132,386
Fringe Benefits	14,479	12,973	17,670
Payroll Tax	4,755	4,759	10,252
Total Support Staff	$ 97,884	$ 95,585	$ 160,308
Secretarial, Membership, Etc.	86,381	84,783	90,636
Fringe Benefits	10,394	9,973	14,170
Payroll Tax	6,297	6,387	6,503
Total Secretarial, Membership Staff	$ 103,072	$ 101,143	$ 111,309
Total All Salaries, Fringe & Tax	$ 452,231	$ 435,477	$ 517,247
Management Services			
Dues and Subscriptions	$ 1,750	$ 1,674	$ 1,800
Data Base Maintenance	5,000	5,138	5,000
Audit	5,000		5,000
Office Supplies	9,500	8,688	9,000
Sundry — Flowers, Etc.	300	557	500
Equipment Purchases	6,500	4,788	6,500
Xerox Maintenance	1,800	1,881	2,000
Payroll — Computer	1,200	1,200	1,200
Retirement Trust Fee	1,000	937	1,000
Labels — Computer	600	540	600
Total	$ 32,650	$ 25,403	$ 32,600

	Budget 1980-1981	*Income & Expense Est. to 5/31/81*	*Proposed Budget 1981-1982*
Association Activities			
Executive Committee Contingent	$ 5,000	$ 2,500	$ 5,000
Executive Committee Discretionary	5,000	1,805	3,000
Executive Committee Travel	5,000	4,197	5,000
Car Allowance	3,480	3,480	3,480
Meetings	3,000	2,833	3,300
President's Contingency	24,000	22,700	24,000
	$ 45,480	$ 37,515	$ 43,780
Building Expense			
Maintenance:			
Building	$ 7,000	$ 4,992	$ 7,000
Equipment	4,800	4,260	5,000
Taxes — Assets	14,200		17,000
Janitorial Services	11,300	14,380	14,800
Utilities	21,000	22,900	24,000
Building and Travel Insurance	5,500	5,460	6,500
Depreciation:			
Building	15,500	15,500	15,500
Equipment	13,435	13,435	14,800
Sinking Fund — Land Acquisition	47,000	54,387	
Interest on Mortgage	13,796	13,796	10,362
Total	$ 153,531	$ 149,110	$ 114,962
Computer Expenses			
Personnel	$ 97,892	$ 100,971	$ 122,813
Fringe Benefits	11,282	10,632	14,260
Payroll Tax	6,583	8,073	6,994
Travel	2,500	2,200	4,150
Dues and Subscriptions	2,000	1,992	2,150
Consulting Fees	2,500	510	2,000
Recruitment	250		425
Equipment Rental	29,640	22,001	27,063
Maintenance	14,300	12,908	16,328
Data Communication	1,200	1,120	3,253
Service Subcontacts	9,600	7,493	9,984
Supplies — Durable	2,200	3,820	2,921
Supplies — Expendable	7,500	5,370	6,200
Softwear-Documentation-Fees	2,500	1,488	2,409
Equipment Purchase	14,180	15,590	13,500
Depreciation	10,800	10,800	10,800
Installation & Site Preparation			3,500
Office Operation — Telephone, Supplies, Postage, etc.	5,655	3,610	3,570
Total Computer Expense	$ 220,582	$ 208,578	$ 252,320

Also delete $4,365.00 for Prison Health Care and insert in lieu thereof $35,365.00.

Delete also $178,330.00 as TOTAL budget for Committee and insert in lieu thereof $209,630.00.

Delete under Committee (page 1) $178,330.00 and insert in lieu thereof $209,630.00.

Delete under Total Expenses $1,442,974.00 and insert in lieu thereof $1,474,274.00.

Delete under Excess Income Over Expenses ($27,716.00) and insert in lieu thereof ($59,016.00).*

At bottom of page insert * Transfer from Undesignated Funds Balance of Association if needed.

The House adopted the following additional recommendations of the Reference Committee:

"In view of the uncertainty of PSRO income, that Income and Expenses of this Department (Information Systems) be monitored carefully by the Executive Committee and the Board of Directors."

Bactrim™
(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warning: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function; possible folate deficiency; severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment. Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

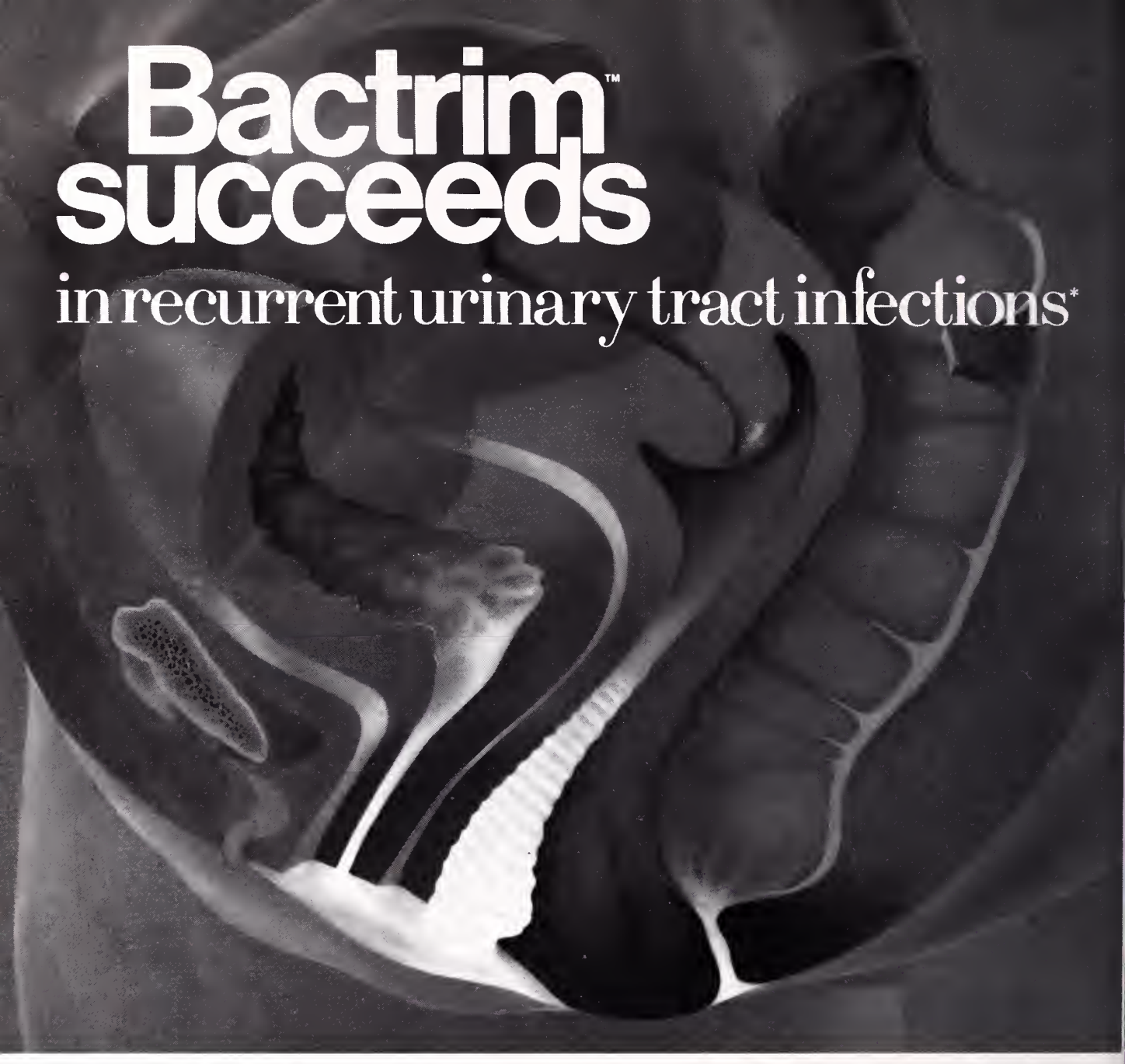
Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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1. Rubin RH, Swartz MN: *N Engl J Med 303* 426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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Please see previous page for summary of product information.

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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976:294:687-90.

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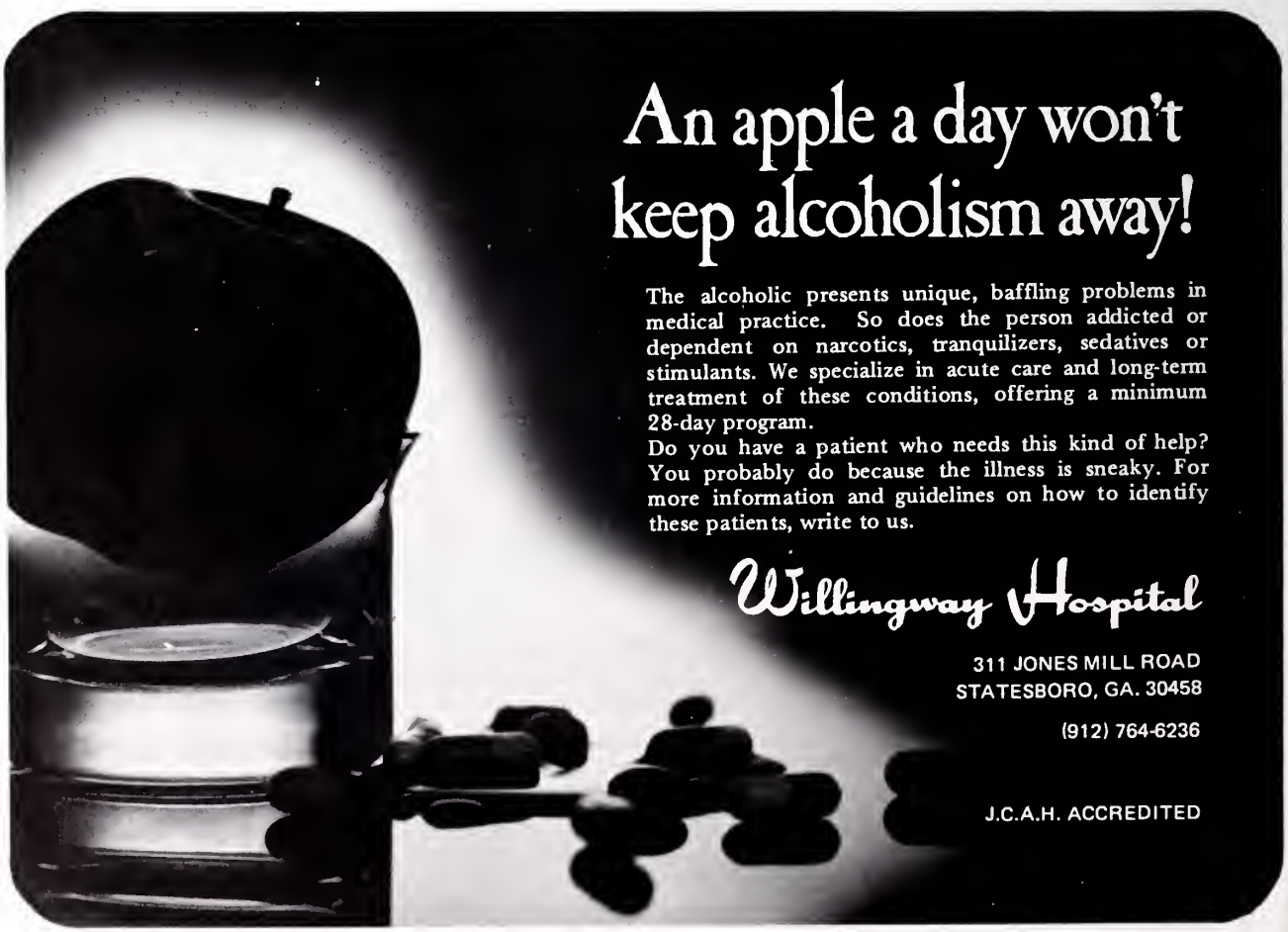
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Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

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- Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
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- Acute exacerbation of chronic bronchitis caused by H. influenzae*

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to H. influenzae.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by E. coli and P. mirabilis. (This drug should not be used in any E. coli and P. mirabilis infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

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Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d †	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
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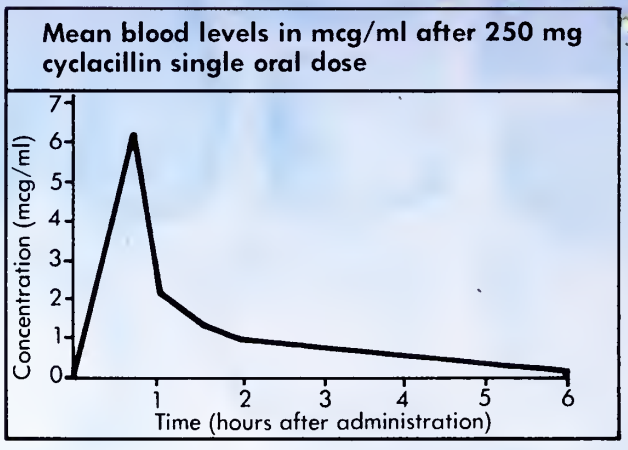
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*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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See important information on preceding page.

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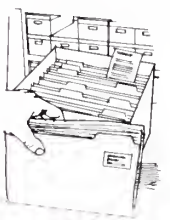
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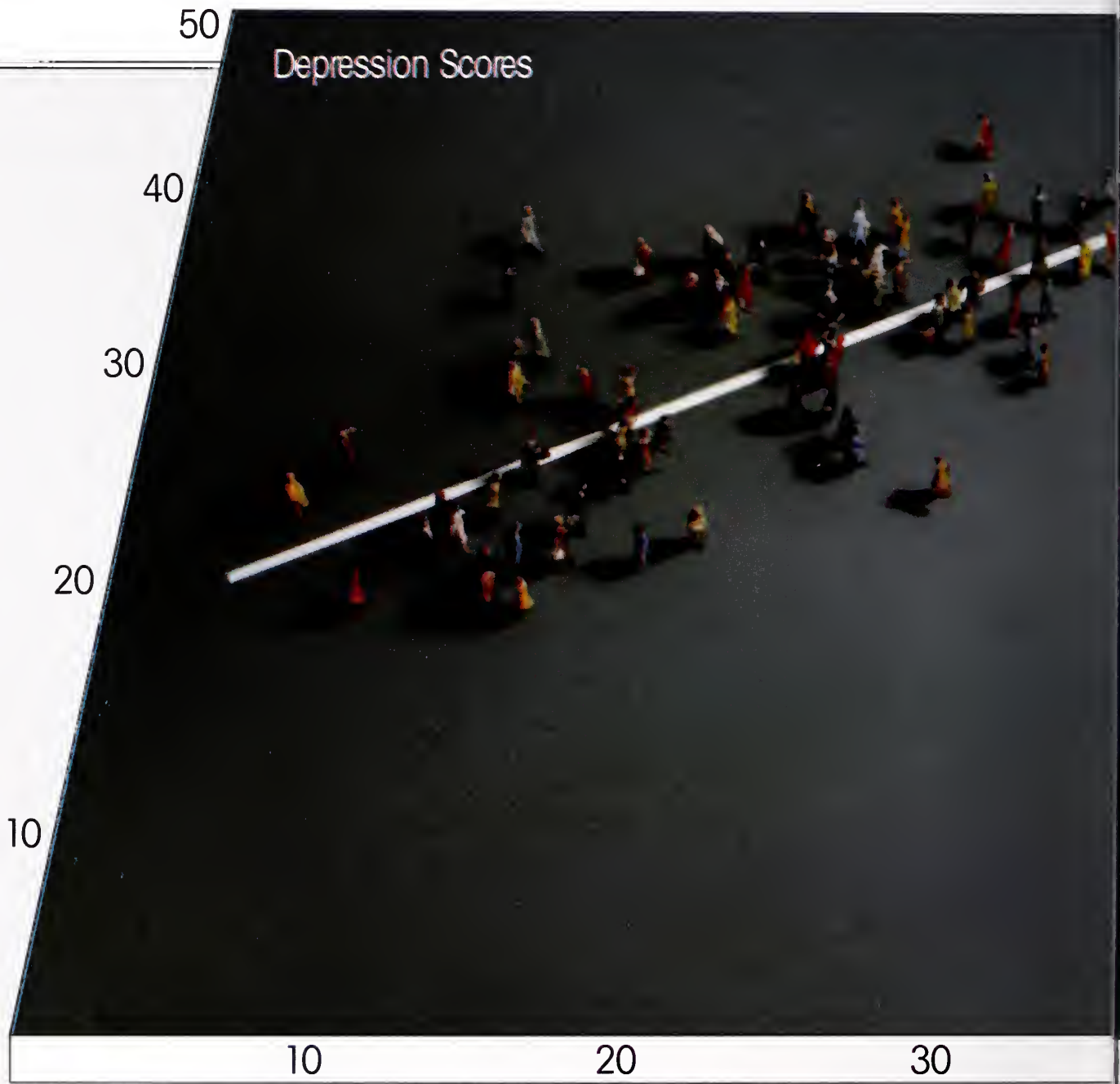
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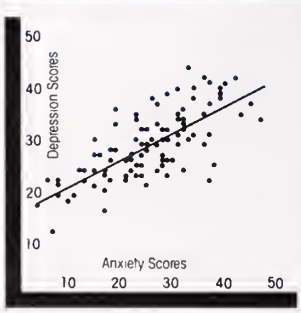
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THE COVER

Continued advances in medical technology have contributed to the increased success of organ and tissue transplantation. Hundreds of lives and thousands of dollars have and can be saved through the use of donor organs. This issue of the *Journal* highlights the tissue and organ procurement activities of the Georgia Lions Eye Bank and the National Kidney Foundation. The editorial by Dr. W. Frank Matthews, Chairman of the MAG Transfusions & Transplantations Committee, concerns organ donation in Georgia and outlines MAG's current involvement in this area. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male, 36 female) seen at a general psychiatric clinic.

[3]Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crafts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Clagharn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neuralogical Effects of Antipsychatic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61:*217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

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MEDICAL MEETING CALENDAR

OCTOBER

16-18 — Columbus: **Muscogee County Risk Management Seminar.** Category 1 credit. Contact L. B. Storey, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or 800/282-0224.

22-24 — *Augusta:* **Medical Fair and Pre-Practice Seminar — A Physicians' and Dentists' Recruitment Program for Rural Areas in Georgia.** Contact Bert Franco, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or (in Ga.) 800-282-0224.

23-24 — *Atlanta:* **GU Radiology.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

23-25 — *Atlanta:* **Cardiac Ischemia & Arrhythmias — Current Concepts for Diagnosis and Treatment.** Contact International Medical Education Corp., 64 Inverness Dr., East Englewood, CO 80112. PH:800/525-8646.

24 — *Gainesville, FL:* **Applications of Psychiatry to Family Practice.** AMA Category 1 & AAFP prescribed credits. Contact Office of CME, Univ. of FL., Coll. of Med., Box J-233, JHM Health Ctr., Gainesville 32610. PH:904/392-3143.

24-25 — *Atlanta:* **American College of Utilization Review Physicians.** Contact Betty Hamman, 1108 N. Second St., Harrisburg, PA 17102. PH:717/607-4428.

26-29 — *Atlanta:* **66th Scientific Assembly for the Interstate Postgraduate Medical Assoc. of North America.** Contact H. B. Maroney, Interstate Postgrad. Med. Assn. of North America, P.O. Box 1109, Madison, WI 53701. PH:608/257-6781.

29-Nov. 1 — *Kiawah Island, SC:* **Primary Care of Hand Injuries.** Contact Gail M. Gorman, Amer. Society of Surgery of the Hand, 3 Parker Pl., Ste. 132, 2600 S. Parker Rd., Aurora CO 80014. PH:303/755-4588.

30-31 — *Hilton Head, SC:* **Allergy and Immunology for the Clinician.** Category 1 credit. Contact A. J. Kimber, Amer. Acad. of Allergy, 611 E. Wells St., Milwaukee, WI 53202. PH:414/272-6071.

NOVEMBER

1-5 — *Atlanta:* **Amer. Academy & Assoc. of Ophthalmology.** Contact Faye Anderson, Amer. Acad. Ophthalmology, 1833 Fillmore, San Francisco, CA 94120. PH:415/921-4700.

4-6 — *Atlanta:* **Annual Meeting — Georgia Academy of Family Physicians.** Contact Camille Day, GAFP, Ste. 205, 11 Corporate Sq., Atlanta 30329. PH:404/321-7445.

9-10 — *Atlanta:* **Arthroscopy Techniques Course.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

10 — *Decatur:* **Critical Care Medicine.** Category 1 credit. Contact John A. Harrel, Jr., M.D., Dir. Med. Affairs, DeKalb Gen. Hosp., 2701 N. Decatur Rd., Decatur 30033. PH:404/292-4444, ext. 5215.

12 — *Atlanta:* **Symposium on Epilepsy.** Category 1 credit. Contact John Hinkle, Ga. Chapter, Epilepsy Foundation of Amer., 57 Forsyth St., NW, Ste 1005, Atlanta 30303. PH:404/523-4197.

13 — *Atlanta:* **A Day of Pediatrics.** Category 1 credit. Contact Diana Stephenson, Med. Staff Secy., Scottish Rite Hosp., 1001 Johnson Ferry Rd., NE, Atlanta 30363. PH:404/257-2032.

13 — *Callaway Gardens:* **A Day on Rheumatic Disease.** Category 1 credit. Contact Jonathan P. Vansant, M.D., The Medical Ctr., Columbus 31904. PH:404/324-4711, ext. 6573.

19 — *Atlanta:* **Enhancing Your Financial Skills — AMA Seminar for Physicians and Spouses.** Contact Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535 or 800/282-0224.

19 — *Atlanta:* **9th Biennial MAG Conference on Medical Education: Who Will Care for the Patient?** Category 1 credit. Contact Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535.

20-22 — *Atlanta:* **MAG Scientific Assembly.** Category 1 credit. Contact Stephen Davis, MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535.

DECEMBER

2-6 — *Atlanta:* **Sixth Southeastern Conference on Alcohol and Drug Abuse.** Category 1 credit. Contact Charter Med. Corp., Addictive Disease Div., 5780 Peachtree Dunwoody Rd., Ste. 170, Atlanta 30342. PH:404/257-9333.

5 — *Atlanta:* **New Thrusts in Hypertension.** Category 1 credit. Contact Stephen L. Daniel, Morehouse School of Medicine, 830 Westview Dr., SW, Atlanta, 30314. PH:404/681-2800, ext. 319.

10-11 — *Atlanta:* **Retina Post-Graduate Course.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

10-11 — *Durham, NC:* **Current Topics in Geriatric Medicine.** Category 1 credit. Contact Coordinator, Cont. Ed., Box 2914, Duke Med. Ctr., Durham, NC 27710. PH:912/684-5623.

10-12 — *Atlanta:* **Angioplasty for the Radiologist.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

10-12 — *Atlanta:* **Annual Diabetes Seminar.** Category 1 credit. Contact Vicki Schneider, Ga. Affil. Am. Diabetes Assn., Ste. 810, 1447 Peachtree St., NE, Atlanta 30309. PH:404/881-1963.

WE WANT TO SERVE YOU BETTER!

Although we receive many notices for excellent continuing education meetings, all too often the information is received too late for timely inclusion in our Medical Meeting Calendar. In order for *your* meeting to be included, please send us the necessary information *two months* in advance of the issue in which you want it to appear. For example: for the August issue, copy is due by June 20; for the September issue, copy is due by July 20, etc. Mail to: Stephen Davis, Director of Education, MAG, 938 Peachtree St., NE, Atlanta, GA 30309.

Incidental Intelligence . . .

MAG Mutual Receives Charter

On August 19, the MAG Mutual Insurance Company received its charter from the Office of the Secretary of State of Georgia. Although the company is not yet licensed to sell insurance, it is one step closer towards its goal of writing professional liability coverage for Georgia physicians in early 1982. Several documents submitted to the Insurance Commissioner's and Secretary of State's offices for clearance. MAG Mutual hopes to receive clearance approval soon on all other documents so it may begin the marketing campaign to raise the $3 million in surplus needed to start the company. All MAG members will receive materials regarding the capitalization and operation of the company as part of this campaign. MAG Mutual selected a reinsurance broker and will soon begin establishing the claims review department and underwriting procedures. Physicians who have professional liability insurance policies which are expiring with commercial carriers should renew them to assure continuous coverage until MAG Mutual is actually writing insurance. Specific questions shold be directed to Bert Franco at MAG Headquarters, 404/876-7535 or 800/282-0224.

Science in Medicine, 1906-1981 — An Anniversary Symposium

A symposium to mark the 75th anniversary of the Federal Food and Drug Act of 1906, jointly sponsored by Emory University and the U. S. Food and Drug Administration, will be held in the Woodruff Medical Administration Building Auditorium on the Emory campus on Oct. 15-16, 1981. Topics of discussion will include an historical perspective of medicine as well as an update of the state of the art. Some of the speakers include J. Willis Hurst, M.D., of Emory University, who will speak on "Cardiovascular Care During the Twentieth Century," and Thomas H. Jukes, from the University of California, Berkeley, who will speak on "Food as a Poison, A Medicine or a Talisman." "Epidemiology — 20th Century Historical Perspective" will be the subject of a talk given by Abraham M. Lilienfeld, of The Johns Hopkins University; Mark Novitch, of the FDA, will speak on "Science in the Control of Prescription Drugs;" the editors of two medical journals will also address this symposium as well as many other distinguished speakers from other universities. Members of the Emory University Planning Committee for this Symposium are: Neil C. Moran, M.D., (Pharmacology), Robert H. Silliman, M.D., (History), John H. Stone, M.D., (Medicine), and James Harvey Young (History), Chairman. For further information, contact Dr. Young at the History Department, Emory University. Ph:404/329-6555.

Ridgeview Institute

Ridgeview Institute is a private, non-profit, fully accredited psychiatric hospital located less than 20 minutes from downtown Atlanta. Ridgeview offers three individual, fully-accredited, separately-housed programs in alcohol and drug treatment, adult, and adolescent psychiatry.

A full range of treatment methods are available and a high staff-patient ratio assures individualized attention. Bright, warm colors and sunny interiors provide a non-institutional atmosphere as patients participate in a wide range of theraupetic and recreational activities.

Alcohol & Drug Program

This program offers a multi-dimensional treatment and rehabilitation program aimed at helping those afflicted with the disease of alcoholism or drug addiction. A variety of groups and activities are led by trained, experienced addiction counselors and therapists. Alcoholics Anonymous and Narcotics Anonymous are intrical parts of the program.

Adult Psychiatric Program

Under the psychiatrist's leadership, patients on the adult unit are treated individually for depression, anxiety, schizophrenia, manic depressive illnesses, personality disorders and other similar disfunctions. The physician and treatment team work closely together on the patient's assets as well as problems in the social, psychological and physical areas.

Adolescent Program

This unique program offers a wide range of treatment modes and emphasis is placed on resolving the emotional, behavorial and educational difficulties involving this age group. A fully accredited school lets the young people continue their education during the inpatient process. Classes are small and credits earned at Ridgeview are transferred back to their schools.

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Cobb County Medical Auxiliary — An Example of Raising Significant Monies For a Hospital

Hospital gift shops that serve the needs of patients, their visitors, and hospital personnel have become pet projects for many county medical auxiliaries. One of the most successful enterprises of this type in Georgia is the shop at Kennestone Hospital in Marietta which is owned and managed by the Auxiliary to the Cobb County Medical Society.

In fiscal year 1980-1981, the shop grossed over $400,000 in sales; it gave approximately $100,000 of this to the hospital to help buy needed equipment. The remainder was used to support a variety of the auxiliary's other charitable activities.

The original hospital structure was only 2 years old when the first shop was organized in 1952 during the auxiliary presidency of Mrs. Hugh Colquitt (Bea), with Mrs. Earl Benson (Bette) as chairman. The shop was located in a small, hot, catch-all room at the end of a hall, which the hospital administration allowed auxiliary members to use on a trial basis. Begun as a non-profit business, all proceeds were used to start a medical library so that the new hospital could obtain accreditation.

Articles sold in this first modest shop included "white elephants" and doodads contributed by auxiliary members and displayed on card tables and discarded grocery store shelves. When the public learned of the need for other items, several local clubs came forward to help. In a short while, the facility became so popular that the stock had to be expanded to include homemade cakes and cookies, sandwiches, potato chips, candy bars, and chewing gum. Until that time, the only food and drinks available had come from a cracker and peanut vending machine and a coke dispenser in the lobby.

The first shop was managed and tended entirely by auxiliary members on a daily schedule, but it soon became such a big task that hired help was necessary and bigger quarters required. After several moves, the present shop was occupied in 1975 when the latest hospital expansion was completed. A dining area with counter and booths was installed on one side of the large, glass-fronted room, and a section with toilet articles, baby items, gifts, magazines, stationery, and toys now occupies the other side. It is open 24 hours a day. Auxiliary members spend their time working on committees to replenish supplies, price items, and keep the books of a busy and smooth-running operation which is a model for other auxiliaries.



Mrs. Clem M. Doxey, Jr., (Carolyn), left, current gift shop chairman and her co-chairman, Mrs. Robert Mitchell (Nancy), right, discuss gift shop items with Mrs. Hugh Colquitt (Bea), center, who was president of the Cobb Auxiliary when the first gift shop was opened in 1952.

Records available since 1962 show that the hospital has received from proceeds of the gift shop a total of $438,533.88 for much-needed equipment. The hospital library has received $69,453.90. Scholarships to nursing students and others in allied health careers amounted to $47,935.90. A public medical symposium held each year for the past several years has received $5,000. Contributions for this period total $560,923.68.

Among many other gifts to worthy causes, the auxiliary regularly furnishes medical dictionaries and any requested health-related books to nearby Kennesaw College. Funds also have been used to redecorate a Father's Room at the hospital and to outfit candy stripers with new uniforms.

(Reported by Mrs. Brit B. Gay, Jr., (Evelyn), Auxiliary to the MAG.)

The Georgia Burn Prevention Project, Inc. — Creating a New Awareness

Georgia is among those states that lead the nation in deaths due to burns and associated injuries. In an effort to create more public awareness and promote education about burn prevention in this state, the Georgia Burn Prevention Project was incorporated in September, 1980. This nonprofit group was formed as a result of interest generated by the Georgia Governor's Conference on Burn Prevention held in May of 1980.

This group, which is comprised of representatives from both the private and public sector, plans to accomplish these objectives by supplying to selected facilities (such as schools and regional libraries) burn prevention education kits targeted at various age groups containing information that has proved to be successful in other communities. The group also plans to provide visiting instructors to some of these facilities, to teach burn prevention and to conduct regional seminars for the public. Other scheduled activities include purchasing and producing public service announcements on burn prevention for radio and television and producing videotapes on burn prevention for use by other groups teaching this subject.

To accomplish this, the Project needs approximately $100,000. Physicians are being asked to send a tax-deductible contribution (check or money order) to the Georgia Burn Prevention Project, Inc., 225 Peachtree St., NE, Ste. 400, Atlanta 30303. For more information, contact Dr. Tim Ryles at 404-656-3790 or Mr. George McFarland at 404-691-6803.

Letter to the Editor . . .

The Issue of PSRO Still Debated

Dear Sir:

The correspondence concerning PSROs in the May 19, 1981, *JMAG* inspires me to make several comments. The discussion concerning the purposes of PSRO, including cost and quality of care, makes me wonder again just exactly how these things are going to be accomplished. The mandate of PSRO to monitor any effective improvements in the quality of care seems to be ignored in all of the reports by the PSROs themselves, indicating that they (the PSROs) are concerned primarily with expenditures.

It then becomes interesting to note how they go about saving money. Several things come to mind. The panels that have functioned in the local foundations seem to be proud of their activities of saving costs by means of denying several days of hospitalization, totaling up these number of days and loudly proclaiming that they have saved a great deal of money. It would be quite interesting to have the retrospective denials that are carried out by the monitoring groups come to the attention of the individual patients, but it doesn't seem that the system works that way.

As one goes about totaling up the amount of money that is saved, I am reminded of an encounter several years ago shortly after the Home Placement Programs of the Utilization Review Plans were instituted. One of the nurse functionaries of this Home Placement Program reported that in the past month, their Home Placement Plan had saved approximately 20 days of hospitalization through their Home Placement Plan. My curiosity prompted me to ask how she determined such savings. Her reply was, "whenever we are asked to see a patient and assist in the discharge planning, we use a factor of 4.3 days saved." It would be easy, then, to see how many days were saved, because if she had seen five patients in the previous month to assist in discharge planning, she would have saved 20 or so days in the past month.

Of course, this has nothing to do with the reality of this situation, since there was no indication in any way that the patient was discharged from the hospital earlier because the nurse had seen the patient. At the same time, both she and the other people involved in Utilization Review were very proud of their record of saving hospital days and consequently saving money. Methinks this is a valid comparison to the loud proclamations of the savings accomplished by PSRO. It is easy for the PSROs to save money. They simply deny several days of a patient's hospitalization. How proud they are that they have saved the taxpayers' money.

Sincerely,
W. Daniel Jordan, M.D.
Atlanta

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For Coughing With Nasal and Bronchial Congestion



RU-TUSS® EXPECTORANT

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

- Vasoconstrictor, antihistaminic, expectorant actions with codeine
- Rapid relief of upper respiratory congestion and cough
- Good tasting

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or the Family

SNEEZE

RU-TUSS® TABLETS

DESCRIPTION

Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings.)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription.

COUGH

RU-TUSS® EXPECTORANT

DESCRIPTION

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoontul every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

HOW SUPPLIED

Pint bottles (16 fl. oz.)	NDC 0524-1010-16

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JOURNAL
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Update on Organ Donation in Georgia

DONALD G. AIKEN, SYLVIA B. RODGERS, R.N., EDWIN J. MACON, M.D., and GEORGE O. WARING, M.D., *Atlanta**

EVERY WORKING DAY in 1980, surgeons in America performed about 50 corneal transplants and about 20 kidney transplants, totaling more than 12,900 and 4,697 cases, respectively, for the year. In Georgia alone, more than 700 cornea and approximately 73 kidney transplants were performed last year. Although the procurement of good quality donor tissue is the responsibility of tissue banks, most practicing physicians are playing increasingly active roles in human organ procurement. Because of this, summarized below are the details concerning donor cornea and kidney procurement, processing, and distribution so that physicians in our area may be better informed about these vital tasks.

Organizations Involved in Tissue and Organ Procurement

In Georgia, two Eye Banks supply corneas, one affiliated with the Emory University School of Medicine in Atlanta, the other with the Medical College of Georgia in Augusta. Georgia Lions Clubs provide financial and other support for the Eye Banks. Kidney needs are supplied by the Atlanta Regional Organ Procurement Agency (AROPA) and the Medical College of Georgia Kidney Procurement Program.

Both the Eye Bank and AROPA are private, nonprofit organizations which not only provide donor corneas and kidneys to potential recipients but also facilitate research into ocular and renal diseases. AROPA is affiliated with other transplant centers throughout the United States, Canada, and Europe through the South-Eastern Organ Procurement Foundation (SEOPF) for the purpose of organ sharing. By way of a computer network, the Georgia Lions Eye Bank maintains constant contact with Eye Banks throughout the country to identify needs and to locate and help distribute available tissue.

The organ banks conduct intensive professional and public education programs that increase awareness of the need for tissue and organ donation. In-service programs for medical, nursing, and paramedical staff acquaint them with donor evaluation, donor maintenance, and retrieval techniques. Without close cooperation of participating hospitals and their staff, organ procurement programs will fail.

Corneal transplantation is the most frequently performed and most successful human homograft, with up to 95% success. In Georgia alone, many individuals often wait from 2 to 3 months for surgery due to the chronic shortage of transplantable tissue. Only through increased public awareness of the need for donor tissue can these needs be met.

Kidney transplantation has become medically acceptable for patients with End Stage Renal Disease (ESRD), a terminal condition resulting from several diseases (Table 1). Graft survival rates for kidney transplants exceed 70% at 2 years in many centers throughout the country. The American Society of Transplant Surgeons estimates that a minimum of 8,000 to 10,000 organs could be transplanted yearly if there were sufficient donors. Not only would this dramatically improve the quality of the patient's lives, but for every 100 kidneys successfully transplanted, 16 million tax dollars could

* Mr. Aiken is Technical Director of the Georgia Lions Eye Bank at Emory University; Mrs. Rodgers is Procurement Coordinator for the Atlanta Regional Procurement Agency (AROPA); Dr. Macon is Medical Director of AROPA; Dr. Waring is Associate Professor of Ophthalmology at Emory University School of Medicine. Address reprint requests to Mr. Aiken at the Georgia Lions Eye Bank, Department of Ophthalmology, Emory University School of Medicine, Atlanta, GA 30322.

be saved that would have been spent on chronic dialysis. In fact, a single cadaveric donor can rehabilitate two chronic dialysis patients at a cost that is generally less than 1 year of hemodialysis.

Specifics of Kidney Procurement

A transplantable kidney comes from only two sources: a living related donor or a cadaver donor. Of the approximately 5.5 million people in Georgia, ESRD developed in 543 persons in 1980.[1] Although some of these patients are not medically suited for a transplant, many others continue to undergo dialysis while awaiting a kidney transplant. Since only 15-20% of the patients suitable for a transplant receive a living related donor kidney, the availability of cadaver kidneys is the limiting factor.

If a potential donor falls within the jurisdiction of the county coroner or medical examiner, verbal consent must be secured by the organ bank from the appropriate official before surgical recovery of the organs. According to the Georgia Uniform Anatomical Gift Act, any person prior to death has the legal right to donate all or part of his/her body for medical research, education, therapy, or transplantation after their death.[2] In the event that a patient is carrying a Uniform Donor Card or driver's license signifying his/her wish to donate organs and/or tissues, the family should still be consulted and permission obtained. Written consent for donation of organs and eyes must be secured from the next-of-kin (Table 2) along with the signatures of two witnesses if no donor card is available. Consent forms are available in the hospitals for this purpose.

The physician's role in organ donation differs between kidneys and corneas. Kidney donors must be identified *before* death, and AROPA must depend on health practitioners in the community to notify them about possible donors. Eye donors, on the other hand, can be identified immediately after death, but the active participation of attending physicians is still central. Securing permission is a most difficult and delicate situation for the physician to face. A simple, clear explanation of the need for tissue and a forthright request has proven to be the best approach. It gives the family a clear opportunity to say yes or no. In all cases involving possible kidney donors, an experienced procurement coordinator is prepared to approach the family and explain the Georgia Anatomical Gift Act, request a donation, and emphasize that the highest quality of medical and nursing care will continue to be given regardless of their decision.

Generally, a potential kidney donor is a person who has suffered cerebral death, i.e., where the nervous system has been irreversibly destroyed but the heart continues to beat regularly, maintaining normal systemic vascular circulation. Cerebral death can be caused by any one of several conditions (Table 3). By means of artificial ventilation, all organs other than the brain continue to function normally, and the quality of the kidneys equals that of kidneys from living related donors because there is no agonal phase of insufficient renal blood flow.

Several criteria must be met before kidney donation may occur (Table 4). Viability of the kidneys can be best maintained if the donor has respiratory assistance to maintain the PO_2 above 70 mm Hg, fluid expansion or dopamine infusion to maintain the systolic blood pressure above 90 mm Hg, diuretics or dopamine to maintain urine output above 50 mil-

TABLE 1 — Diseases Resulting in End-Stage Renal Disease

Disease (in order of frequency)
1) Hypertension
2) Diabetes mellitus
3) Glomerular nephritis
4) Polycystic kidney disease
5) Analgesic nephropathy
6) Collagen-vascular diseases

TABLE 2 — Priority for Granting Consent

1) The spouse
2) An adult son or daughter
3) Either parent
4) An adult brother or sister
5) A guardian of the person of the decedent at the time of his death, other than a guardian *ad litem* appointed for such purpose
6) Any other person authorized or under obligation to dispose of the body

TABLE 3 — Common Causes of Brain Death

1) Open or closed head trauma
2) Hypoxia
3) Intracranial hemorrhage
4) CNS tumor
5) Drug overdose
6) Drowning

TABLE 4 — Criteria for Evaluation of Potential Kidney Donors

Acceptable:
1. Previously healthy individuals suffering from irreversible brain injury.
2. Age 2 years to 65 years with intact renal function confirmed by: BUN, serum creatinine, urinalysis

Unacceptable:
1. Pre-existing renal disease.
2. Past or present malignancies other than CNS.
3. Insulin dependent diabetes.
4. Severe uncontrolled hypertension of more than 2 years duration.
5. Sepsis or uncontrolled major infections.
6. Brain death of unknown cause.

liliters per hour, correction of hypothermia, and balanced electrolytes. A coordinator is available 24 hours a day to assist in any aspect of donor evaluation or maintenance.

In all cases involving possible kidney donors, an experienced procurement coordinator is prepared to approach the family and explain the Georgia Anatomical Gift Act, request a donation, and emphasize that the highest quality medical and nursing care will continue to be given the patient regardless of their decision.

Georgia law states that a person may be pronounced dead if he/she has suffered irreversible cessation of brain function (Table 5). The determination of brain death remains the clinical judgment of the patient's attending physician and requires independent confirmation by another physician. A physician who acts in good faith in accordance with the provisions of the law shall not be liable for damages in any civil action or subject to prosecution in any criminal proceeding.[3, 4] The declaration of death must be made by a physician who is not a member of the transplant team and must be documented in the medical chart by both physicians.

Method of Nephrectomy

Once permission for donation of the kidneys has been obtained and brain death has been declared, plans for the nephrectomy can be made. The standard procedure for kidney retrieval in this country is the en-bloc technique. The abdominal aorta and the inferior vena cava are transected below the celiac axis and above the bifurcation. In order to achieve immediate recipient graft function, warm ischemia time must not exceed 5 minutes.[5, 6] Care is taken not to disturb the renal vasculature, and handling of the kidneys is minimized. The renal tissue is delivered from the wound en-bloc with the renal arteries and veins still attached to the aorta and the vena cava, respectively. The kidneys are flushed through the distal end of the aorta with an intracellular hyperosmolar solution at 4°C, terminating warm ischemia and commencing cold ischemia. Following the nephrectomy, mesenteric lymph nodes and the spleen are removed to be used later for tissue typing. Once the organs are adequately flushed, the aorta and vena cava are divided longitudinally, separating the kidneys. AROPA prefers simple hypothermic preservation; however, when prolonged periods of preservation are required (exceeding 36 hours), hypothermic pulsatile preservation using a plasmanate solution may be instituted.

TABLE 5 — Suggested Criteria for Establishing Brain Death

1. Unresponsive to any stimuli; no spontaneous movement.
2. Apnea — respiratory assistance should be withheld for a few minutes to prove there is no voluntary respiratory effort.
3. Arreflexia — including pupillary, corneal, gag, and caloric. Deep tendon reflexes may persist because of intact spinal-peripheral pathways.

Procuring Eye Tissue for Transplantation

Numerous diseases affect the cornea and can result in corneal opacity, edema, and other conditions necessitating corneal transplantation (Table 6). Several systemic diseases preclude the use of corneas for transplantation (Table 7).[7] Solid neoplasms, even with metastases, are not contraindications for use of the corneas for transplantation. Donor age is of little significance — corneas from donors aged 2 months to 88 years have been successfully transplanted. In fact, there is no difference in postoperative outcome or success of penetrating kerato-

TABLE 6 — Corneal Diseases Treatable by Penetrating Keratoplasty

Disease (in order of frequency)	Approximate Percent of Clear Grafts
1) Aphakic corneal edema	80%
2) Keratoconus	90%
3) Failed keratoplasty	70%
4) Fuch's dystrophy	80%
5) Viral keratitis or scar	75%
6) Familial corneal dystrophies	90%
7) Penetrating or blunt injury	70%
8) Chemical burns	15%
9) Corneal degeneration	75%

TABLE 7 — Systemic Contraindications to Use of Corneas for Transplant

A. Death of Unknown Cause
B. CNS Degenerative Diseases
 1. Creutzfeldt-Jakob Disease
 2. Subacute sclerosing panencephalitis
 3. Progressive multifocal leukoencephalopathy
 4. Obscure chronic central nervous system disorders
C. Infections
 1. Congenital rubella
 2. Subacute encephalitis, cytomegalovirus brain infection
 3. Septicemia
 4. Hepatitis
 5. Rabies
 6. Syphilis
 7. Meningitis
 8. Viral pneumonia
 9. Pulmonary tuberculosis
D. Neoplasms
 1. Blast-form leukemia
 2. Hodgkin's disease
 3. Lymphosarcoma



Figure 1 — The donor cornea button is lowered into place over the recipient's eye after the diseased tissue has been removed.



Figure 2 — The donor cornea is then secured with a continuous 10-0 nylon suture that will remain in place for up to 1 year.

plasty associated with donor age.[8, 9] Also, corneas from donors with refractive error of the eyes, such as myopia, hyperopia, and astigmatism or with cataracts, can be used. Eyes that have had corneal infections, glaucoma, intraocular surgery, penetrating trauma, or hereditary diseases of the cornea would not be suitable for transplantation but are useful for research.

In the Atlanta and Augusta metropolitan areas, a trained Eye Bank technician or resident physician is on duty at all times to perform the sterile enucleation in the hospital or funeral home. In other communities throughout the state, Eye Bank-trained, licensed embalmers provide this service. Immediately after death, cooling of the eyes with ice bags or by refrigeration of the body lowers the metabolic rate of the corneas, making the tissue healthier for transplantation[10] and significantly prolonging the postmortem time limits.[11, 12] The procedure is relatively simple and takes 20-30 minutes to perform. The eye bank technician or physician should remove the eyes within 4 to 6 hours. Generally, the entire globe is removed, although under some circumstances, a corneo-scleral shell may be taken, leaving the rest of the globe in the orbit. If the tissue is to be used for transplantation, the corneas, with a 2- to 3-mm scleral rim, are excised from the whole eye under sterile conditions and stored in a tissue culture medium. Refrigerated at 4°C, the tissue is viable for surgery for up to 5 days.[13] New techniques of corneal storage are currently under development, including organ culture[14] and tissue-cultured corneal endothelium,[15] allowing for storage up to 3 weeks.

Before the tissue is distributed to the ophthalmologist for surgery, the donor's medical history is thoroughly evaluated for reasons for exclusion, and the corneas are examined by a slit lamp biomicroscope to detect abnormalities. Eyes and corneas that are unacceptable for penetrating keratoplasty are distributed to research laboratories across the country. At Emory University for example, the eyes are used for research in corneal preservation, cataract formation and surgery, glaucoma, ocular physiology, corneal collagen chemistry, and corneal HLA antigens. The Eye Bank also distributes glycerin-preserved sclera for use in ophthalmic plastic and reconstructive surgery.[16, 17]

The Georgia Lions Eye Bank, in affiliation with the Ophthalmology Department at Emory, is one of the few centers in the country that routinely tissue types donor and recipient HLA antigens for determining tissue compatibility. Permission for obtaining blood along with the eye donation is required for this purpose. This program enables the Eye Bank to obtain corneal tissue for the 5% of waiting transplant recipients who are considered high-risk. This includes individuals with pronounced corneal vascularization and those with multiple failed corneal grafts.

Organ and Tissue Procurement Computer Networks

Because of the limited number of corneas and kidneys available, organ banks across the country — indeed, around the world — are linked by computer networks to insure the highest quality of organ and tissue use. An IBM series 1 computer, located at the SEOPF office in Richmond, Virginia, provides 24-hour donor/recipient matching services nationwide. Donated kidneys are matched with potential recipients based on ABO compatibility, degree of HLA matching, degree of recipient presensitization to donor antigens, and the recipient's status.

Organ banks are linked worldwide by computer networks to insure the highest quality of organ and tissue use.

The Georgia Lions Eye Bank, in cooperation with the Emory University Computer Center, maintains a computerized data base for a Tissue Inventory Sys-

tem (TIS). This communications network currently links 25 of the more than 80 Eye Bank Association of America (EBAA) member banks.

Future success in organ donation and transplantation is directly related to participation of the entire medical profession. Georgia physicians can make a vital contribution to tissue and organ transplantation by talking with the families of deceased patients about organ donations. Only in this way can the required needs for kidneys and eye tissue be realized. There is no shortage of donor organs and tissues, only a shortage of donor referrals.[18, 19]

For more information, contact the nearest Eye Bank or Organ Procurement Agency:

Georgia Lions Eye Bank
Emory University
1365 Clifton Rd., NE
Atlanta, GA 30322
(404)321-9300
(24-hour number)

Georgia Lions Eye Bank
Medical College of Georgia
Augusta, GA 30912
(404)724-1388
(24-hour number)

Atlanta Regional Organ Procurement Agency (AROPA)
590 Piedmont Ave., NE
Atlanta, GA 30308
(404)659-5918
(24-hour number)
(912)743-9980 (Macon)
(24-hour number)

MCG Kidney Procurement Program
BAA 423
Medical College of Georgia
August, GA 30912
(404)823-3893
(24-hour number)
(912)234-2213
(24-hour number)

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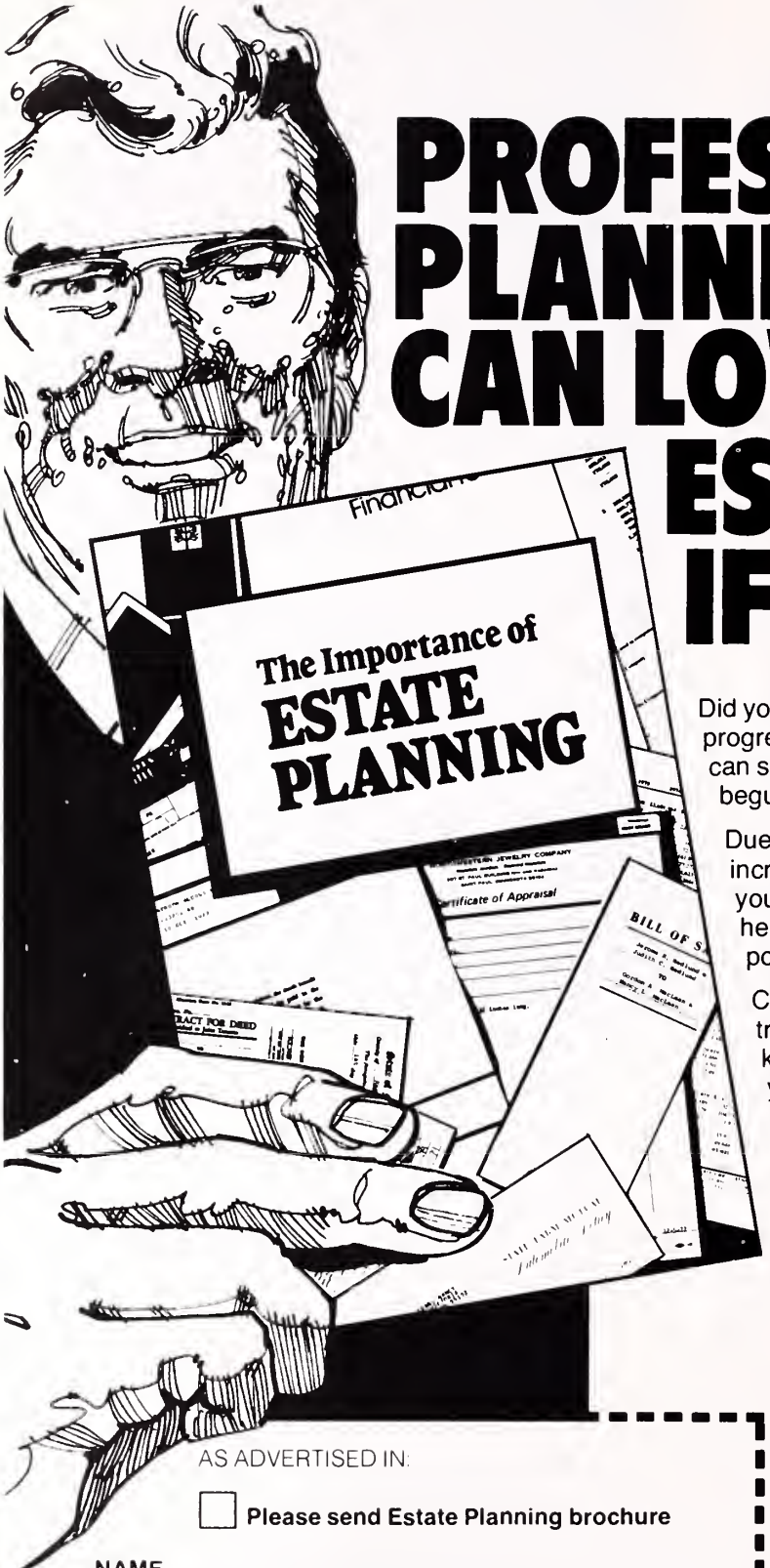
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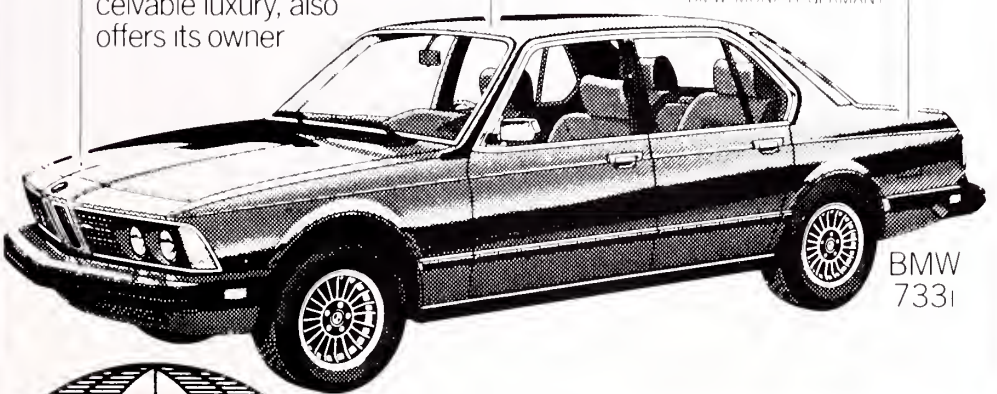
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EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.
Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.
Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.
Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.
PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.
Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.
ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.
A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.
Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.
More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.
Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.
Impairment of accommodation and visual acuity has been reported rarely.
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.
DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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for mild to moderate pain

Wygesic®(IV)

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More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks (e.g., driving a car or operating machinery). Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safely and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors, and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Otolaryngology assumes a new name to better reflect the evolution and scope of its medical and surgical practice.

An Old Medical Specialty Puts on a New Face . . . and Head . . . and Neck

WILLIAM SILVER, M.D., F.A.C.S., *Atlanta,* **and JACK ANDERSON, M.D., F.A.C.S.,** *New Orleans**

"What's in a name? That which we call a rose by any other name would smell as sweet."

As MEDICINE has been making tremendous progress during the past 50 years, a quiet evolution has been occurring in one specialty which may have gone unnoticed by other medical professionals who have been involved in their own specialties. This second oldest medical specialty, otolaryngology, is in the process of changing its name to better reflect the broader scope of its practice in head and neck medical and surgical problems.

In the past, physicians in this specialty have been called "ear, nose, and throat doctors" or "ENTers." This denotation, however, is misleading in view of the broadened scope of the specialty. For this reason, we believe it is necessary to change its name to "Head and Neck Medicine and Surgery."

The Practice of Otolaryngology

Early otolaryngologists spent most of their time fighting the effects of infection and neoplasia in the ears, nose, and throat. They had very few "weapons" until the discovery of antibiotics and chemotherapeutic agents. Since the 1950s, most infections have been controlled at an early stage. Therefore, the need for surgical drainage and excision of diseased tissue has been sharply reduced.

The nature of the otolaryngologic practice has subsequently changed. Otolaryngologists have devoted more time to other areas of head and neck medicine and surgery. For example, the control of allergy and infection made sophisticated ear operations possible. One exciting technical development after another ensued, such that now even tumors of the eighth nerve can be removed via a temporal bone approach. Extensive reconstructive procedures are being performed to correct congenital, surgical, and traumatic defects to provide patients with both functional and cosmetic improvements. As the incidence of head and neck cancer has increased, many patients have consulted otolaryngologists first. Thus, they became the primary care physicians in the management of head and neck cancer.

Involvement of the otolaryngologist in plastic and maxillofacial surgery has been longstanding. In 1887, Roe, an otolaryngologist in Rochester, New York, reported the first endonasal rhinoplasty.[1] Another otolaryngologist, Sir Harold Gillies, is recognized as the "Father of Modern Plastic Surgery."[2] An otolaryngologist was among the founding members of the American Board of Plastic Surgery in 1939, 14 years after the formation of the American Board of Otolaryngology. Finally, the treatment of injuries to the facial skeleton is often handled by otolaryngologists because of their experience in handling such trauma.

Scope of the Modern Specialty

More than 1,000 physicians are currently enrolled in approved otolaryngology residency training pro-

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grams. Approximately 330 of them enter practice each year. Many training programs have been broadened over the years and include plastic and reconstructive surgery, head and neck oncology, rhinology, laryngology, bronchoesophagology, otology, and allergy. To provide for even more highly qualified specialists, the American Board of Otolaryngology, as of July 1981, has required all residents to complete 5 years of specialty training in the head and neck medical and surgical field. Otolaryngology has thus become the fourth surgical specialty to require 5 years of training. This additional training is intended to help meet the growing needs of patient care, teaching, and research. Continuing education programs have spawned, refined, and renewed competence in soft tissue surgery and major oncologic surgery using appropriate reconstructive procedures. These programs have also offered extensive experience in flap reconstruction and free flap transfers, research in wound healing, and more instruction in the growth and development of the facial skeleton and related structures. Continuing education has also led to new and improved techniques in blepharoplasty, rhytidectomy, rhinoplasty, and improved reconstruction of major head and neck deformities.

Requirements for Certification

Since it is the American Board's philosophy that the specialty should move ahead on a broad front, the examination it conducts has been carefully revised to evaluate the candidate's knowledge in the broad spectrum of head and neck medicine and surgery. About 25% of the questions on written and oral examinations are devoted to plastic and reconstructive surgery in the head, neck, and facial area. Another 25% is devoted to head and neck oncology, 25% to otology, and the remaining 25% to general otolaryngology. As might be expected, otolaryngologists specialize according to their particular interests, abilities, and clinical opportunities. Thus, many subspecialize in plastic and reconstructive surgery of the face, head, and neck, oncology, otology, bronchoesophagology, or allergy. Interest in facial plastic maxillofacial and reconstructive surgery is particularly strong.

A New, More Fitting Identity

Since specialization was first recognized, there has been a trend toward regionalization. Other medical and surgical specialties, such as ophthalmology, neurosurgery, urology, obstetrics and gynecology, and colon rectal surgery, have recognized this and become specialists on organ systems or regions. Other physicians and the public understand the scope of their practice.

Though otolaryngology has traditionally been designated as the ENT specialty, this has become inaccurate as the scope of the specialty has broadened. This designation does not connote surgery of the salivary glands, oral cavity, lips or peripheral facial nerve; nor does it include facial fracture repair, pedicle flap procedures from the chest, shoulders, forehead, scalp and cheek, mentoplasty, rhytidectomy, parotidectomy, blepharoplasty, eyelid repair after tumor removal, mandibular surgery, facial implants, scar revisions, bronchoscopy, or mediastinoscopy — to mention just a few.

Because of this, the specialty is changing its name to more accurately reflect the evolution of the scope of its practice. Accordingly, the two largest organizations representing this specialty, the American Council of Otolaryngology and the American Academy of Otolaryngology, changed their names to the American Council of Otolaryngology — Head and Neck Surgery and the American Academy of Otolaryngology — Head and Neck Surgery, respectively. The American Board of Otolaryngology subsequently changed its name to the American Board of Head and Neck Medicine and Surgery.

This Specialty's Future

Today's well-trained otolaryngologists are physicians who have mastered the surgical skills in the area of the head and neck. They can effectively manage the myriad medical or surgical problems associated with the head and neck, from a nosebleed to an extensive cancer operation. This specialty, then, will now be known as Head and Neck Medicine and Surgery — a name that is certainly more appropriate to the nature of its practice.

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The results, complications, and side effects of this surgery are presented and suggest that it is an improvement over the jejunoileostomy.

Gastric Bypass for Morbid Obesity

CHARLES E. WILLS, JR., M.D., *Washington**

FOR MANY YEARS, surgeons have recognized patients' difficulties in maintaining weight following subtotal gastrectomy for peptic ulcer disease. In 1969, Mason[1] reported a modification of this surgery for the express purpose of achieving weight loss. Successes were limited, but with more experience and changes in technique,[2] this surgery has gained in popularity and is increasingly preferred over the jejunoileal bypass.[3]

Patients and Methods

Between May, 1977, and February, 1981, a total of 325 gastric bypasses for morbid obesity were performed at the Wills Memorial Hospital in Washington, Georgia. Seventy-eight of these patients had had a previous jejunoileostomy. In these cases, the jejunoileostomy was taken down and the gastric bypass was performed. The 247 patients who had gastric bypasses as their original surgery are the subject of this paper. The surgical procedure was described in a previous paper.[4]

Results

Weight loss after gastric bypass surgery is very difficult to evaluate statistically, since an amount lost for one person may be excellent while the same amount for another person may be disappointing. Owing to excess skin and fibrofatty subcutaneous tissue in most people,[5] it is not realistic to aim at weight losses according to the usual height and weight tables. A figure 20% above this level is probably a more sensible goal, and this has been my goal in attempting to evaluate the weight loss of my patients. Table 1 shows that for 114 patients, the greatest weight loss occurred in the first 6 months following surgery, and at 24 months, the average weight loss was 91% of the objective of 20% above "ideal" weight. Weight losses varied from 14 kilograms (31 pounds) to 75 kilograms (164 pounds); preoperative weights ranged between 85 kilograms (188 pounds) and 190 kilograms (418 pounds); and ages, between 15 and 63 years.

Complications and Side Effects

Eighteen patients were hospitalized for early postoperative regurgitation. This invariably occurs if patients overeat and is rarely as serious as they think. They are rarely dehydrated, indicating that only excess food is regurgitated. Treatment involves intravenous feedings and no oral feedings for 3 days. A barium swallow is done to verify that the stoma is functioning. When this is explained to the patients, most realize that they have been overeating. The incidence of postoperative regurgitation has been markedly reduced in the last 150 patients by initially instructing them to swallow only 30 cubic milliliters at a time and to wait 10 minutes before ingesting more. This procedure should be followed for 8 weeks postoperatively.

Four patients had additional surgery to correct this problem. In two, complete fibrous stenosis of the stoma had occurred; in one, there was kinking of the stoma, and in the fourth, the stoma had stenosed to 7 millimeters in diameter. Two cases were corrected surgically with excellent results, and two patients insisted on having the bypass taken down.

Three patients continued to have persistent vomiting for many months following their surgery. One was nevertheless quite satisfied with the results,

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TABLE 1 — Results of Gastric Bypass Surgery on 114 Patients, May 1977-February 1981, Washington, GA

Number of Patients	Preoperative Weight Kilograms	Preoperative Weight Pounds	Number of Months After Surgery	Average Weight Loss Kilograms	Average Weight Loss Pounds	Percent of Average Loss in Relation to Objective (20% Above "Ideal" Weight)
33	117	258	6-12	40	80	75
35	120	263	12-18	39	85	76
21	121	266	18-24	41	90	83
25	107	236	over 24	37	82	91

TABLE 2 — Major Complications of Gastric Surgery, May 1977-February 1981, Washington, GA

Complications	Number of Cases
Surgical	
Splenectomy	5
Pneumonia, respiratory failure, and pulmonary embolus	9
Wound infection and stitch abscess	4
Ventral hernia	3
Hepatitis	4
Deep femoral thrombosis	2
Intra-abdominal hemorrhage (treated conservatively)	1
Obstruction afferent loop	1
Sepsis jaundice and hemolytic anemia	1
Stomal and Gastric Pouch	
Persistent early regurgitation	18
Persistent late regurgitation	3
Marginal ulcer	3
Dumping syndrome	10
Staple line breakdown	6
Stomal obstruction	4
Metabolic and Bypass Failure	
Malnutrition	1
Bypass takedown (patient dissatisfaction)	5
Revision for more weight loss	3
Revision for larger pouch	1
Deaths	
Pulmonary embolus	3

though the other patient is not. The third person was treated by taking the gastric bypass down and performing a jejunoileostomy 24 months after her gastric bypass. She has been much happier with the jejunoileostomy.

Marginal ulcers occurred in three people in the form of acute gastrointestinal hemorrhage, with subsequent vomiting of bright red blood and passing of black stools. These cases were successfully treated medically with blood transfusions and cimetidine (Tagamet).

In 10 cases, the gastric bypass was followed by "dumping syndrome," due to stomal enlargement with rapid emptying. Various combinations of nausea, diarrhea, weakness, cold sweats, palpitations, and epigastric discomfort resulted. Medical management was successful when symptoms were mild. One woman has symptoms only when she eats chocolate. One patient's case, however, was so severe that corrective surgery was necessary. The stoma, which measured 22 millimeters, was taken down and a new one made. The patient subsequently experienced excellent relief from the dumping symptoms. One other patient has symptoms so severe that additional surgery will most likely be necessary.

Staple line breakdown occurred in six cases. Patients noticed they were eating more and gaining weight. The diagnosis is easily confirmed by barium swallow. Treatment consists of surgical replacement of the staple line. The staple line is made with 4.8 M M staples in the TA-90 stapler. Various additions to this include applying the stapler twice and interweaving with 3-0 chromic gastrointestinal sutures.

Probably the most effective method to date to avert staple line breakdown was suggested by Pace.[6] From animal experiments, he discovered that staple line breakdown is primarily due to stressing the staple line by overdistending the pouch. If the staple line is not stressed for 8 weeks, the line grows so strong that it cannot be broken. Limiting oral intake to 30 milliliters at a time, and insisting that all oral intake be chewed until it is liquid before it is swallowed, reduces the stress on the staple line. This precaution has the added advantage that after 8 weeks there is some habit formed. There is much less postoperative vomiting, also, which may reduce the incidence of surgical failure due to persistent vomiting. Other instances of staple line breakdown may be due to distension of the lower stomach and to overlapping as a result of bunching of the stomach in the TA-90 stapler.

Jaundice occurred in five patients 5-14 days after bypass surgery. At the time of surgery, liver biopsies showed no evidence of hepatitis. In one patient, a woman, the cause of jaundice was identified as hemolytic anemia secondary to sepsis. She recovered after receiving antibiotics and blood transfusions. The other four had additional liver biopsies positive for hepatitis. In two of these latter four, halothane (Flurothane) was used during the anesthesia. Halothane-associated hepatitis was considered, but could not be definitely identified in any case. Three patients recovered uneventfully with con-

servative therapy. One person who had not received halothane remained quite ill, and required prolonged hospitalization and supportive care. She eventually recovered. It is recommended that halothane not be used unless it is absolutely necessary.

Two patients wanted their bypasses taken down approximately 6 weeks after surgery. Both of these patients were emotionally unstable. (Interestingly, one lost 44 kilograms (97 pounds) during the next 12 months.) The "takedown" is accomplished by dismantling the gastroenterostomy, closing the defect in the jejunum, and performing a large stoma gastrogastrostomy between the upper small pouch and the lower stomach.

Accidental operative injury to the spleen during mobilization of the greater curvature of the stomach resulted in splenectomy in five cases. This has not occurred since January, 1979, and points up the fact that experience is the greatest factor in prevention. This is just as important with regard to the surgical assistant as it is with the surgeon, since it is the surgical assistant who manually retracts in the region of the spleen. The incidence of splenectomy should not exceed 1%.[7]

In nine cases, major pulmonary complications occurred, consisting of pneumonia, respiratory failure, and pulmonary embolus. These were all treated medically. Prevention of these complications was attempted by leg exercises, respiratory therapy, early post-surgical ambulation, and vena cava clipping.

Teflon inferior vena cava partial occlusion clips were used on all patients weighing more than 136 kilograms (300 pounds), over 40 years of age, or with venous disease of the legs. In spite of this, three people died 3 days, 5 days, and 4 weeks postoperatively. In one of the patients at autopsy, the clip had spread to 6 millimeters. The embolus was noted to be flattened and clearly had gone through the clip. Since that time, when clips were applied during surgery, they were flattened to 3 millimeters. The success of these procedures in gastric bypass surgery has not been as dramatic as results with the jejunoileostomy in which (using the same criteria) 600 operations were performed with only one death which was due to massive pulmonary embolus.[8] There have been no deaths from either gastric or intestinal bypasses in patients who weighed less than 136 kilograms (300 pounds) and who were less than 40 years of age. Clips were not used in these cases.

Malnutrition occurred in only one patient. She had at one time weighed 227 kilograms (500 pounds); at the time of the gastric bypass, she weighed 170 kilograms (374 pounds). She subsequently lost 134 pounds during the next 12 months. Successful management of her malnutrition was accomplished at home by dietary means.

Discussion

The anastomotic leakage and perforation of the gastric pouch which have been reported did not occur in this series.[2, 9, 10, 11] Efforts were made to prevent this by preserving the blood supply along the lesser curvature of the stomach and by using the soft rubber T-tube instead of the hard nasal gastric tube.

Four patients have had successful pregnancies and delivered normal babies after their gastric bypasses, and four other patients are pregnant as of this writing. Excessive weight gain occurred in one case. Her physician was very concerned about the nutrition of the fetus, since she was able to eat only small amounts of food. He urged her to eat large quantities which may have significantly contributed to her excessive weight gain.

Disappointing weight losses occurred in a few cases. They were due to a number of reasons, including gastric pouch enlargement, physical inactivity, and ingestion of large quantities of carbohydrate drinks. Three cases were revised because of pouch enlargement and adequate weight loss followed.

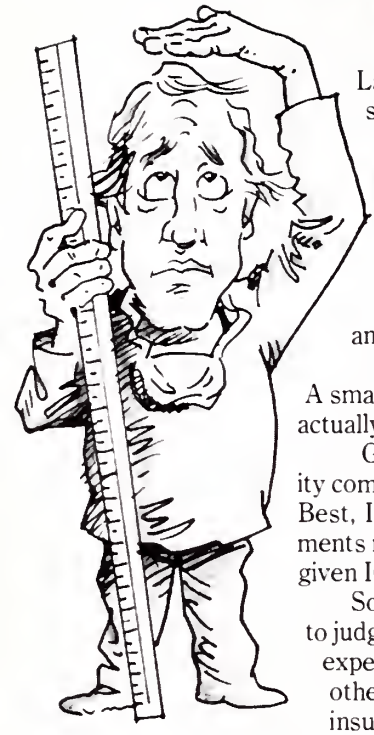
The effect of the gastric bypass on the liver is being studied. Liver biopsies and liver profiles are performed on all cases at surgery. Postoperatively, similar studies are continued periodically. Preliminary studies have failed to demonstrate any ill effects, and improvements have often been noted.

Early results of the gastric bypass strongly suggest that metabolic disturbances, complications, and side effects are much less than with the jejunoileal bypass. Longer periods of observation are needed, however, in order to evaluate the gastric bypass more fully (Ito).

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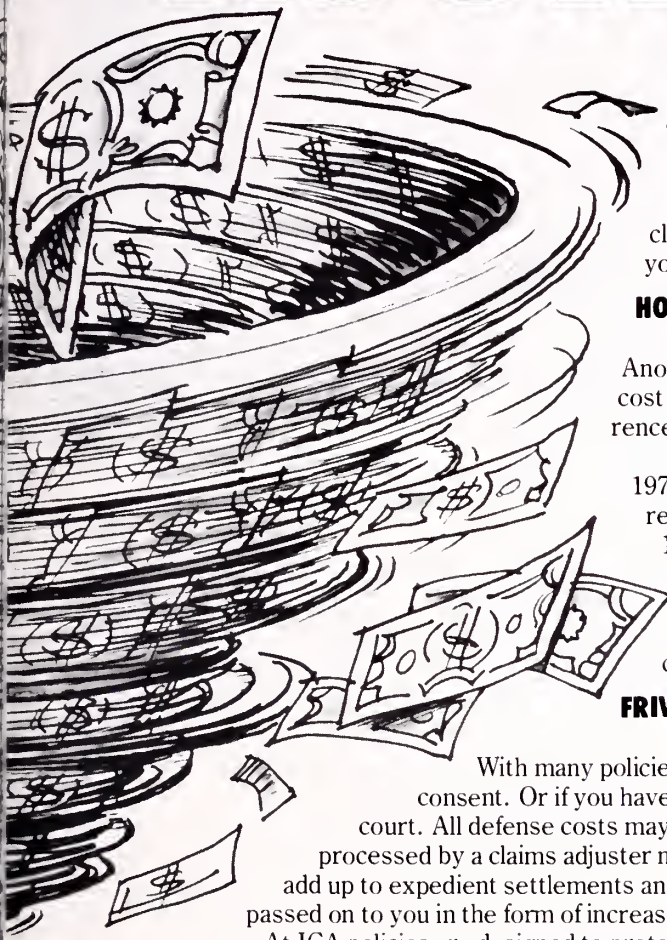
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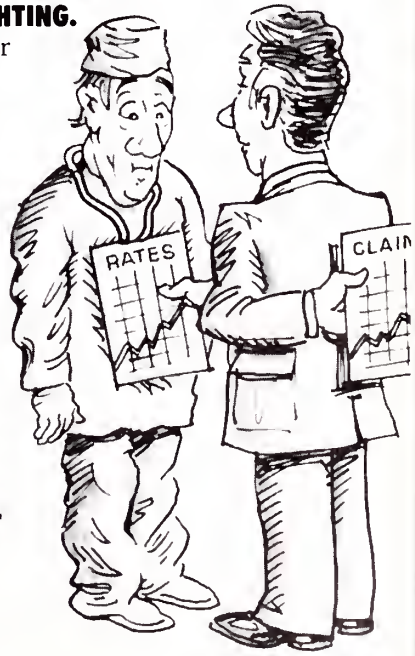
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Incidence rates of cancers in metropolitan Atlanta are traced from the First National Cancer Survey in 1937 through the Second Survey in 1948, the Third in 1969-71, and the ongoing SEER (Surveillance, Epidemiology, and End Results) program.

Trends in the Incidence of Cancer in Atlanta — 1937-1978

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Introduction

THREE SURVEYS of the incidence of cancer have been conducted under the auspices of the National Cancer Institute (NCI) in the past 40 years. In addition, NCI is currently maintaining surveillance of cancer through the SEER (Surveillance, Epidemiology, and End Results) program. A total of 14 localities in the United States have participated in at least one of these surveys. Since Atlanta was included in all three surveys and is also in the SEER program, the incidence of cancer in this city can be calculated over the 4 decades and compared with appropriate composite rates.

The First National Cancer Survey (1NCS) took place in 1937[1] and the second (2NCS) in 1948.[2] Each was a 1-year incidence study. In Atlanta, the studies covered nine counties which included the five-county area covered by SEER (Clayton, Cobb, DeKalb, Fulton, and Gwinnett Counties). The Third National Cancer Survey (3NCS) was a 3-year study of cancers diagnosed from 1969 through 1971 in residents of the same five counties.[3]

In 1978, Devesa and Silverman[4] reported the trends of cancer incidence in the United States found in the three surveys. They outlined the difficulties encountered in comparing the rates. The principal problems were: (a) the failure to include leukemias, multiple myelomas, and lymphomas in the 1NCS, (b) the inclusion of basal and squamous cell carcinomas of the skin in the 1NCS and 2NCS, and (c) the differences in the localities studied between the 2NCS and the 3NCS. They solved these problems by: (a) projecting back from the 2NCS to estimate the leukemias, lymphomas, and multiple myelomas for the 1NCS, (b) by excluding the nonmelanotic skin cancers from the first two surveys, and (c) by calculating the rates for the three surveys to include only those for the seven areas common to all three. They also adjusted for certain other coding changes that took place between the surveys.

The rates per 100,000 for the United States shown in the tables are those for the seven common areas for the 1NCS, 2NCS, and 3NCS resulting from these adaptations.

Only composite rates are available for the 1NCS. For this reason, a rough estimate of Atlanta's rate in 1937 has been calculated by assuming that this city would have borne the same relation to the whole in this survey as it did to the same group of cities in the Second Survey in 1948. For example, the breast cancer rate in Atlanta was 79% of that of the total seven cities rate in 1948. The Atlanta rate in 1937 was taken to be 25.8 or 79% of 32.7 (the seven cities rate in 1937). Although this may not be wholly accurate, it gives us a logical value for the rates in 1937. Furthermore, it is consistent with the general trends observed from 1948 to the present.

Another problem in comparing trends over time concerns the rates for nonwhites: rates for blacks are not available for the 1NCS and the 2NCS. For Atlan-

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ta "nonwhite" is virtually the same as "black"; in 1970, only 1.1% of the nonwhite population were other than black. For the U.S. aggregate, 12.1% were other than black. For the graph, the U.S. composite 3NCS "nonwhite" point has been connected to the SEER "black" point with a dotted line. We recognize that for many sites the nonwhite rate was somewhat lower than the equivalent rate for blacks in the seven common area aggregate; the all-cancer rate for nonwhite males in the 3NCS was 7.1% lower than for black males. For nonwhite females, the rate was 4.4% lower. As a result, U.S. rate increases have probably been magnified.

Because the rates for these surveys were age-adjusted to the U.S. 1950 population, we have used this adjustment for the tables and graphs included in this article. Tests for statistically significant differences between age-adjusted rates were Z-tests using the variance proposed by Chiang.[4]

The 1975-78 rates for Atlanta are those calculated by the Atlanta Cancer Surveillance Center (the Atlanta unit of the SEER project) from diagnoses made in those 4 years. The equivalent for the United States data was the average annual rate for the composite of all 10 of the SEER units for 1975-78. The denominators for these last rates are linear projections of U.S. Census estimates of the population in 1974 and 1975.

Results

Table I contains the total cancer rates for Atlanta and the U.S. for each of the surveys and for the current SEER program. Our estimates of Atlanta's incidence rates at the time of the First Survey indicate that they differed from those of the U.S. in the overall magnitude and order of the most common primary sites. The total cancer rate for each race-sex segment of the population was also lower. Today, Atlanta's total rate is 3% higher than the combined rate. From 1937 to 1978, Atlanta's cancer incidence has increased 60%, while in all the other areas combined it increased only 16%.

In 1937, malignant tumors of the uterus and breast were the most common type of cancer. This accounts for the higher overall cancer rates in women than men. The rates among whites were then higher than nonwhites of each sex. Presently, the order is reversed, with the rate for black men ranking first, white men second, white women third, and black women fourth.

Figure 1 shows Atlanta's changing rates for frequently diagnosed cancers in the 40 year study period. The rates are plotted on a logarithmic scale. The most notable features of this graph are the large decreases in the rates for cervical and stomach cancer and the dramatic increase in the rate for lung

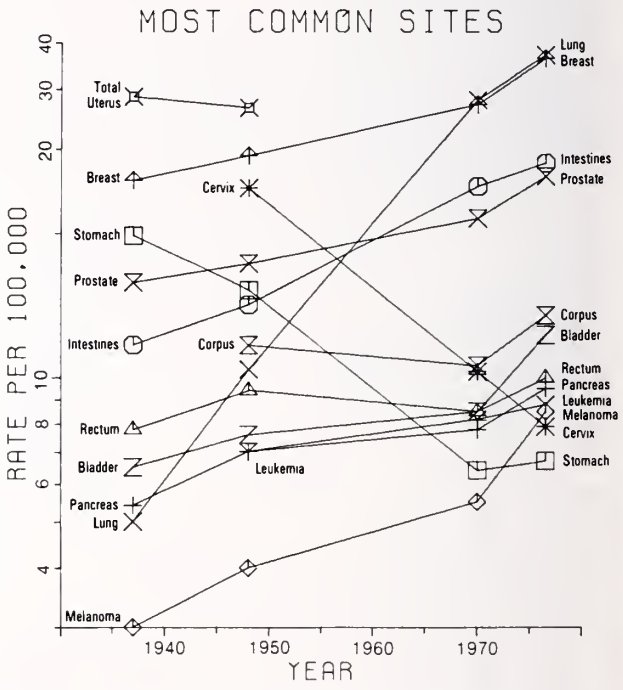


Figure 1 — Trends in the incidence of cancer of the 12 most common sites; all races, both sexes, Atlanta, 1937-1978.

TABLE 1 — Annual Age-Adjusted Rates[1] of All Sites of Cancer, Atlanta and United States, 1937-1978

	White				*Nonwhite*					
	Male		*Female*		*Male*		*Female*		*Total*	
	Atlanta	*U.S.*	*Atlanta*	*U.S.*	*Atlanta*	*U.S.*	*Atlanta*	*U.S.*	*Atlanta*	*U.S.*
1NCS[2]	183.1	247.1	224.8	286.1	94.2	153.8	203.7	243.3	193.7	259.3
2NCS[3]	210.2	283.7	239.7	305.0	138.2	225.6	228.7	273.2	215.8	288.9
3NCS[4]	304.1	309.0	243.4	256.8	329.8	330.2	219.0	231.5	263.2	277.7
75-78[5]	344.3	327.1	284.1	278.5	410.8	404.6	257.1	269.1	309.6	300.6

1. Adjusted to U.S. 1950 population.
2. First National Cancer Survey 1937.
3. Second National Cancer Survey 1948.
4. Third National Cancer Survey 1969-71.
5. U.S. rates are for blacks rather than nonwhites.

cancer. All other rates have increased somewhat. Of the 10 most common cancers in 1978, eight ranked in the top ten 40 years ago. Stomach and cervical cancer have been replaced by lung cancer and melanoma of the skin as the most common malignancies. Atlanta differs from the U.S. in that melanoma has replaced lymphoma as one of the 10 most frequent malignancies. The seven most frequent cancers are in the same order. The Appendix lists three rates.

Total Cancers

Figures 2 and 3 show the secular change in rates of all cancers for whites and nonwhites over the 4 decades. Both Atlanta and U.S. rates are shown. Those for whites in Atlanta have been monotonically increasing for both men (88%) and women (27%). United States female rates are virtually the same after an initial rise, then fall in the Third Survey, but the incidence in men increased by 31%. Nonwhite male rates have increased more than four-fold in Atlanta and two and one-half times in the U.S.

Stomach

The dramatic decreases in gastric malignancies seen in the past few decades seem to have slowed nationally and, in fact, in Atlanta the frequency of

APPENDIX — Annual Age-Adjusted Rates of Cancer,[1] Atlanta, GA, 1937-1978

		White		Nonwhite		Total	
Site	*Year*	*Male*	*Female*	*Male*	*Female*	*Atlanta*	*United States*[2]
Lung	1937	8.4	4.0	1.7	2.5	5.0	8.5
	1948	18.1	6.5	5.0	4.3	10.4	17.6
	1969-71	72.2	14.2	73.9	8.2	38.0	39.2
	1975-78	83.0	23.2	83.4	13.9	47.3	44.2
Breast	1937		53.4		35.0	25.8	32.7
	1948		58.6		38.2	29.1	36.9
	1969-71		71.4		50.2	37.2	38.7
	1975-78		86.0		71.3	46.5	43.2
Intestines	1937	17.5	11.1	5.8	3.5	11.7	20.2
	1948	21.2	13.1	6.4	4.8	14.2	24.6
	1969-71	27.4	24.1	22.4	23.5	25.1	27.1
	1975-78	30.8	26.3	26.9	28.0	28.1	29.9
Prostate	1937	36.1		21.1		15.8	16.0
	1948	42.2		34.4		17.3	17.5
	1969-71	50.4		79.1		21.5	20.4
	1975-78	58.2		107.0		26.3	24.2
Corpus	1948		18.4		33.0	11.7	11.7
	1969-71		20.5		13.5	10.6	11.8
	1975-78		25.8		17.4	13.5	14.4
Bladder	1937	10.2	4.3	4.4	3.8	6.5	9.7
	1948	12.5	4.6	5.5	5.4	7.6	11.3
	1969-71	16.5	4.2	8.4	3.5	8.5	11.7
	1975-78	23.8	6.4	12.1	2.4	12.3	13.0
Rectum	1937	7.6	8.4	3.7	6.1	7.8	13.7
	1948	8.8	10.4	5.8	9.8	9.4	16.6
	1969-71	11.2	6.8	9.9	7.0	8.5	12.2
	1975-78	12.3	7.8	13.6	8.9	10.0	12.9
Pancreas	1937	7.3	5.1	2.2	2.8	5.4	5.5
	1948	9.7	5.7	5.0	5.3	7.0	7.1
	1969-71	9.3	6.1	10.9	8.1	7.8	8.7
	1975-78	12.9	6.0	13.2	9.5	9.5	8.2
Leukemia	1948	11.2	6.3	6.1	—	7.0	7.6
	1969-71	12.3	5.9	9.4	4.8	8.2	8.4
	1975-78	11.7	7.2	9.7	5.4	8.8	8.4
Melanoma	1937	2.9	4.2	1.8	1.0	3.0	2.0
	1948	4.0	5.5	1.5	1.3	4.0	2.7
	1969-71	6.5	6.6	1.2	0.8	5.5	4.3
	1975-78	9.6	9.8	0.4	0.5	8.5	6.5
Cervix	1948		41.6		66.9	24.9	21.3
	1969-71		15.8		30.5	10.3	9.2
	1975-78		10.4		28.4	7.9	6.3
Stomach	1937	16.5	17.0	27.7	18.7	19.8	32.9
	1948	12.8	11.9	28.7	19.2	15.2	25.2
	1969-71	7.1	3.5	19.4	7.2	6.4	9.1
	1975-78	7.4	3.9	15.9	8.3	6.7	8.0
All Others	1948	69.7	57.1	39.8	40.5	58.0	88.8
	1969-71	91.2	64.7	95.6	61.7	75.6	76.9
	1975-78	95.1	72.1	120.8	66.0	83.7	81.4

1. Adjusted to United States 1950 population.
2. 1975-78 rates are for blacks rather than nonwhites.

the disease has increased slightly since 1970 (Figure 1). Still twice as high for men as for women and for blacks as for whites, it has dropped in ranking from third to fourteenth.

Intestines (Colon plus small bowel)

The rates of intestinal cancers for both whites and nonwhites in Atlanta were much lower than in the national rates in 1937; now they are much closer. In Atlanta, the rate increases have been exceeded only by those of lung (Figure 1). It has risen from sixth to third. Rates are slightly higher for men than women. The rise has been most dramatic in nonwhites.

Rectum

Cancer of the rectum in Atlanta has increased only for men since 1948. Rates are still lower than national rates which have decreased slightly over the years. Until the 3NCS, rates for women in Atlanta were higher than those for men. Now, men have a 50% higher rate. Rectal cancers continue to be the seventh most commonly diagnosed cancer.

Pancreas

Pancreatic cancer has been increasing in all race-sex groups locally and nationally. It has risen from ninth to eighth in frequency in Atlanta where the rate for men is higher than in any of the other SEER units.

Lung

The nearly 10-fold increase in the Atlanta lung cancer rate easily surpasses the national five-fold increase. Since the 3NCS, female rates are increasing faster than those for men. At current rates of increase, the incidence among women will overtake that among men in 1998.

Melanomas of the Skin

Consistent with its southern latitude and the predominantly Anglo-Saxon background of its whites, Atlanta has a high rate of melanoma of the skin. Though the rate is increasing nationally, Atlanta ranks more than one third higher than the U.S. rate. Melanoma ranks 10th in Atlanta, having surpassed cervical and stomach cancer in frequency; it occurs at about the same frequency among white men and women. The incidence in blacks is very low.

Breast

There are more breast cancers diagnosed in Atlanta than cancers of any other anatomical site. Only one-half of one percent (0.5%) of the total are found in men. The South has until recently had a low incidence of breast cancer, but now the Atlanta rate in white women is one of the highest of all the SEER units, and is 5% above the national rate. The rate for nonwhite women has also risen to a level above that of the U.S.

Cervix

The coding system for the First Survey did not distinguish between cervix and corpus. In Figure 1, we have separated them from 1948 onward. In the

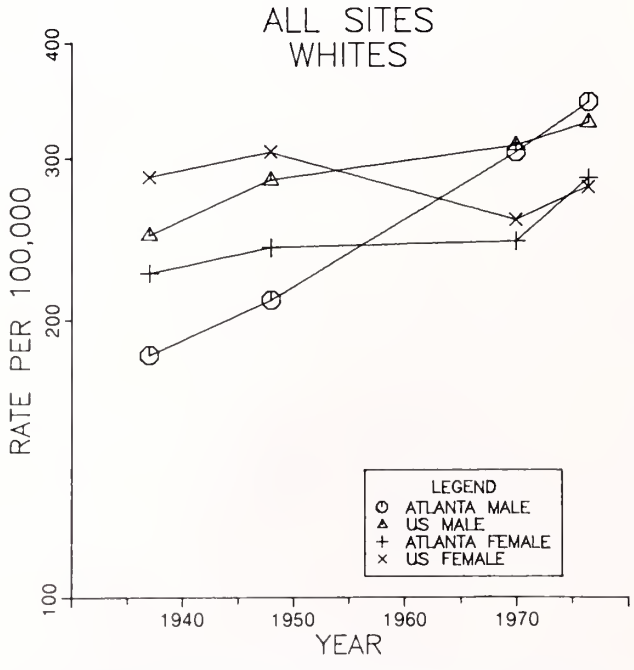


Figure 2 — Trends in the incidence of all cancer sites combined, in whites, Atlanta and United States, 1937-1978.

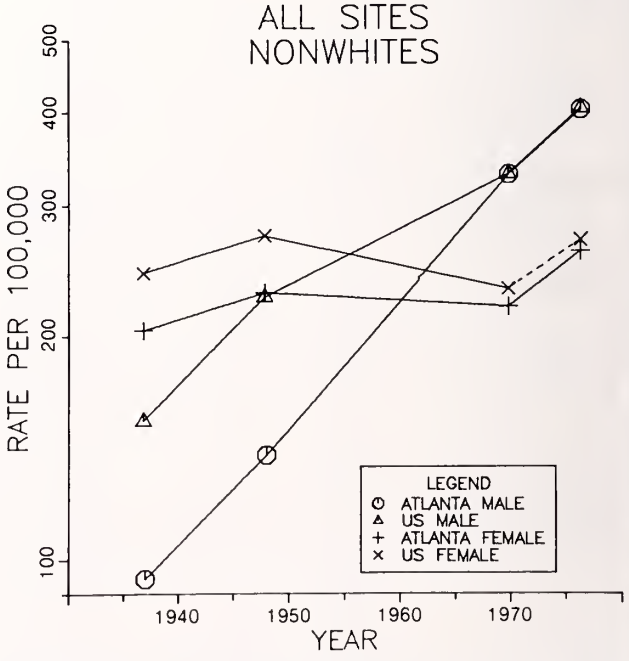


Figure 3 — Trends in the incidence of all cancer sites combined, in nonwhites, Atlanta and United States. (The dashed line indicates the change from nonwhite rates to that for blacks.) 1937-1978.

earlier years, the rate for uterine cancer was well above all other sites; now it has dropped to fifth. Invasive cervical cancer has decreased steadily in both white and nonwhite women since 1948, but the decrease has occurred more rapidly in white women. The rate for black women is now nearly three times as high as the rate for white women. It ranks 11th in Atlanta and 13th nationally.

Corpus

Corpus cancer in white women has increased slightly in Atlanta in the last 7 years consistent with the national trend but not as notably as on the West Coast.[6] In Atlanta in 1948, nonwhite women had rates nearly twice as high as whites. Since then, rates for whites have surpassed those for other races. It ranks fifth in Atlanta.

Prostate

Cancer of the prostate in nonwhite men in Atlanta occurs at the highest rate for any site for any race-sex group in any of the SEER areas. It ranks fourth overall now as it did in 1937 for both Atlanta and the U.S. and has been increasing steadily since then. White males had higher rates than nonwhites in the first two surveys. Rates among nonwhites are now 69% higher.

Bladder

Bladder cancer ranks sixth in frequency in Atlanta and seventh in the U.S. It is more than twice as frequent in white men as in any other group. Rates for men have been steadily increasing, while those for women have been more variable.

Lymphomas

Lymphomas were not considered malignancies in the First Survey so our data begin with 1948.* When the lymphomas are divided into Hodgkins and non-Hodgkins categories, it is found that the latter have increased, while the former remain at approximately the same level. Neither is as frequent in Atlanta as in the U.S. Lymphoma ranks twelfth in Atlanta and eighth in the U.S.

Leukemia

The incidence rate for all leukemias ranks ninth in Atlanta. Like lymphomas, these were not counted in the First Survey, so our data begin with 1948. The rate in white men has over the years remained nearly twice that of the other race-sex groups. Compared to other types of cancer, the increase in leukemias has been modest.

Thyroid

Thyroid cancer is notable for having increased more than four fold in Atlanta since 1948. For white women, its rate is 44% higher than the U.S. rate and is significantly higher than it was in 1970.

Discussion

Most remarkable about these data is the 60% overall escalation of cancer rates in Atlanta in the last 40 years, compared to 16% in the United States. The change in ranking of Atlanta black men from the lowest to the highest race/sex group was accompanied by a more than four-fold rate increase. White male rates underwent an 88% rise. The female rate for both races increased significantly in Atlanta but not in the United States. The South for many years has had low rates for colorectal and breast cancers. It has now reached or surpassed national rates. Lung cancer in white men particularly has risen well above the U.S. average.

In spite of the dramatic reduction in cervical and stomach cancers, Atlanta's rate for all cancers has risen 60% in the last 40 years compared to a 16% rise in the United States.

The increase in the overall rate is the more remarkable because it has occurred in spite of two large components of decrease — stomach and cervix. It is possible that the observed rate increases are due to some extent to more aggressive case finding and improved registry methodologies. The extent of the influence of this factor cannot be assessed, however, and there is no reason to believe that this factor is significantly more important in Atlanta than in other area registries.

The rate increases in Atlanta nonwhites might be due in part to improved access to medical diagnosis and care for blacks as well as to other socio-economic changes that have occurred in the last 4 decades. It should be noted, however, that while the rates for some cancers in nonwhite men in Atlanta showed striking increases, some rate decreases were also observed. For example, the stomach cancer rates in Atlanta nonwhite men decreased by 57%, while the corresponding percent decrease for white men was 45%.

In our mobile society and with the growth of the population of Atlanta from less than one-half million in 1937 to over one and one-half million, people with higher cancer risks may have moved to this city for a variety of reasons.

To investigate this possibility, the distribution of the birthplaces of the 1976 and 1977 cases were

* In order to estimate the total cancers in 1937, an estimate of lymphomas, leukemias, and multiple myelomas based on 2NCS data was added to the total other cancers.

examined. Of the 79% whose birthplace was known, 67% of these were born in Georgia, an additional 18% were born in one of the southeastern states. This compares with 70% and 17% in a random sample of 300 death certificates of residents dying in metropolitan Atlanta. Significantly, fewer native-born Georgians were found among patients with bone or soft tissue malignancies and melanoma. Georgians were overrepresented in patients with cancer of the prostate, kidney, esophagus, mouth, and pharynx. This needs further investigation.

Another problem is the inclusion in the Atlanta area surveyed of the four additional more rural counties in the first two surveys. Since rural areas as a rule have lower rates than urban areas, one might argue that including these in the areas surveyed would lower the rates for the first two surveys. However, these four counties represented only 7.5% of the total population at the time of the two earlier surveys. Furthermore, this would not explain the sharp rise since 1970.

A real increase in cancer rates may have occurred. Though no obvious cause presents itself, some ambient or environmental carcinogen may have become active in the community. The substantial increases in men of both races might well be a result of exposure to some industrial carcinogenic agent. The largest increase since 1970 has been in black men (19%), the smallest in black women (13%).

The population estimates may be incorrect. Underestimates of the population, particularly in the older age groups where cancer occurs most frequently, may inflate the rates. The 1980 census may settle this question, but in the meantime, there are four different estimates of the population available at this time which give rates that vary widely within certain population groups. These originate from: (a) The Vital Records Section; (b) The Office of Planning and Budget, both of the Georgia Department of Human Resources; (c) The Atlanta Regional Commission; and (d) the U.S. Bureau of the Census. We have selected the estimates of the Bureau of the Census as being internally most consistent and comparable with the other SEER registries.

When the rates are examined by county of residence, Table 2 shows that Clayton County has shown the most striking increase (28.8%). Both male and female rates in all counties show a statistically significant rise since 1970 ($p < 0.05$). Clayton County's rate for all cancers in men is 20% higher than that for metropolitan Atlanta. The rate for women is 13% higher.

Another possible cause for the continuing rise in cancer rates, especially those of the gastrointestinal tract, is the apparent change in the dietary patterns accompanying the growth of this cosmopolitan city. Traditionally, the South has been famous for pork, chicken, and vegetables, especially greens (turnip, mustard, collard, etc.). The last quarter century has seen a phenomenal rise in the number of "fast food" establishments serving hamburgers, french fries, and beef sandwiches. Whether this plays a role will be a subject of future investigation.

Though the four most frequent primary site groups for each of the race-sex groups represent more than 63% of the total cancers, the rates for all other cancers are increasing with time. Whether this is a function of better diagnosis, better access to medical care, the introduction of new carcinogens, the migration of potential patients into the area, an artifact resulting from incorrect estimates of the population, or a combination of these factors remains to be investigated.

TABLE 2 — Annual Incidence Rates of Cancer by County, Metropolitan Atlanta Area, 1969-71 and 1975-79, (Age-Adjusted to U.S. 1950)*

County	*Total*	*Males*	*Females*
Clayton			
1969-71	281.0	342.7	233.3
1975-79	361.8	434.3	320.3
% Increase	28.8	26.7	37.3
Cobb			
1969-71	249.8	291.9	221.9
1975-79	312.0	353.8	291.4
% Increase	24.9	21.2	31.3
DeKalb			
1969-71	263.7	297.1	248.9
1975-79	296.9	336.2	280.9
% Increase	12.6	13.2	12.9
Fulton			
1969-71	267.4	320.2	240.2
1975-79	316.3	380.4	282.8
% Increase	18.3	18.8	17.7
Gwinnett			
1969-71	237.7	260.7	225.0
1975-79	293.4	344.5	258.9
% Increase	23.4	32.1	15.1

*All increases are statistically significant ($p < 0.05$).

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It is the essential responsibility of mental health professionals to provide the courts with sound, practical assistance derived from scientific and clinical experience and to rise above preconceived prejudices and erroneous assumptions concerning mentally ill criminal offenders.

A Practical Approach to the Disposition of "Not Guilty by Reason of Insanity" Cases

ILHAN M. ERMUTLU, M.D., *Atlanta**

THE DISPOSITION of individuals who are found to be "not guilty by reason of insanity" (NGRI) is an area of potential conflict between criminal justice and mental health systems. The source of conflict is the fact that, even though the person is declared not guilty and placed under the supervision of the mental health system for treatment, the court retains the decision-making power regarding the release of the person from the hospital. Such an individual cannot be discharged from the hospital until the court, after a formal hearing, rules that the NGRI does not meet the criteria for involuntary admission as provided in Chapters 88-4 and 88-25 of the Georgia Health Code.[1] The point of dispute between the two systems arises when the hospital staff believes an NGRI individual no longer requires hospitalization, while the court refuses to permit his/her release. Often, the major issue at the hearings is the question of possible recurrence of mental disorders. Especially if the person is on psychotropic drugs at the time of the hearing, the court closely questions the medical expert about the possibility of relapse and recurrence of criminal behavior if the patient discontinues the medication unilaterally. Often, the judge is reluctant to release the individual if there is a history of relapses even though the person does not meet the civil commitment criteria at the hearing.

The prospect of keeping someone in the hospital, even though the person does not need institutional care, is a cause for frustration for the hospital staff for various reasons. First, the current approach to treatment of the mentally ill calls for early release from hospitals to follow the principle of "least restrictive environment." Secondly, state hospitals in Georgia, as well as in other states, have a limited number of beds, and they are under increasing pressure to find space for the acutely and chronically ill. When the beds are occupied by individuals who are to stay a year or more, even though they no longer require in-patient care, it may have a bearing on the kind of treatment other patients receive. For example, pressure for bed space forces the staff to discharge patients who might need to stay in the hospital longer. Such premature discharges frequently result in rehospitalization within a relatively short period of time.

On the other hand, society is sensitive to the release of persons to the community after a short hospital stay following acquittal because of a mental disorder. Presumably, there are two major reasons for such reaction. One is that the person does not face the consequences of his/her crime and escapes punishment. The second reason, and perhaps the more significant one, is the belief that the individual will not follow the treatment regime recommended and will get sick again. In the minds of many, the relapse of illness is equated with recurrence of criminal behavior. The validity of this assumption deserves close scrutiny.

Since recidivism is the key issue here, it may be useful to remind readers that recidivism rates of the NGRI group and the non-mentally ill prison inmates are rather similar.[2-4] How real the danger is of recurrence of criminal behavior in NGRIs must be determined in light of these statistics as well as the relapse factor. I believe using "compliance with treatment regime" as the major yardstick in granting

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or not granting release to an NGRI has serious shortcomings. At the same time, the possibility of coexistence of a mental disorder and criminal behavior is an accepted fact. Studies indicate that approximately 15 to 20% of prison inmates manifest sufficient psychiatric pathology to justify treatment, and about 5% of the prisoners suffer from some form of psychosis.[5]

This article suggests an approach which would be useful in deciding the disposition of NGRI cases by both mental health professionals and the judiciary.

Categorizing Mentally Ill Offenders

A review of the case histories of the NGRIs as well as an evaluation of defendants with mental disorders in court proceedings indicates that mentally ill offenders can be categorized into two groups which offer a practical guide for a more systematic approach to disposition.

Group A: This group consists of mentally ill offenders in whose cases the mental disorder is directly and causally related to the crime committed. In other words, the offense would not have taken place if the person did not have a mental disorder which itself produced the motive for the criminal behavior.

Group B: Individuals in this group happen to be mentally ill at the time of the criminal act, but the nature of the act does not have a specific cause and effect relationship with the mental disorder. In these cases, the defective judgment, impulsivity, deterioration of social skills and controls caused by a mental disorder are often the facilitators of criminal behavior even though the illness itself is not a factor in the generation of the criminal motive.

An example of a Group A type is a murder case in which the defendant believed that the victim had powers to influence his daughter's mind, and the defendant equated this with an "act of rape." He felt a compulsion to destroy the person whom he called "the devil" to protect his family, and therefore he killed this individual. Another case concerns the young man who felt that his mother and grandmother, with whom he lived, were not really his relatives and were taking advantage of him. He had bizarre delusions regarding his origin which he believed started several thousand years ago. Two years before, he had threatened his grandmother with a knife, while under the influence of similar delusions, and had been charged with aggravated assault. Two years later he murdered her. On examination, he was found to be actively psychotic and delusional with the same ideas about the women who "mistreated me," "lied to me," etc.

In these two cases, the victims were the key figures in the delusions of the defendants. Without these specific delusional ideations, they would have no reason or motive to commit the crimes.

The defendants in Group B do not present such specific and pointed motivation as part of their illnesses. The probability of their committing other crimes if their illness recurs is no greater than other recidivist felons. They attain NGRI status because of their having severe mental disorders at the time of the crimes. The most common offenses committed by such individuals include burglaries, aggravated assaults, terroristic threats, and, occasionally, armed robberies and motor vehicle thefts.

It is crucial for the expert witness who evaluates the defendant to differentiate between these two groups and to inform the court accordingly. Individuals who belong in Group A must be scrutinized much more carefully regarding their mental status and treatment plans. Theoretically, one expects that if delusional thinking recurs, the probability of similar criminal behavior is higher if a previous crime was committed as a response to such delusional content.

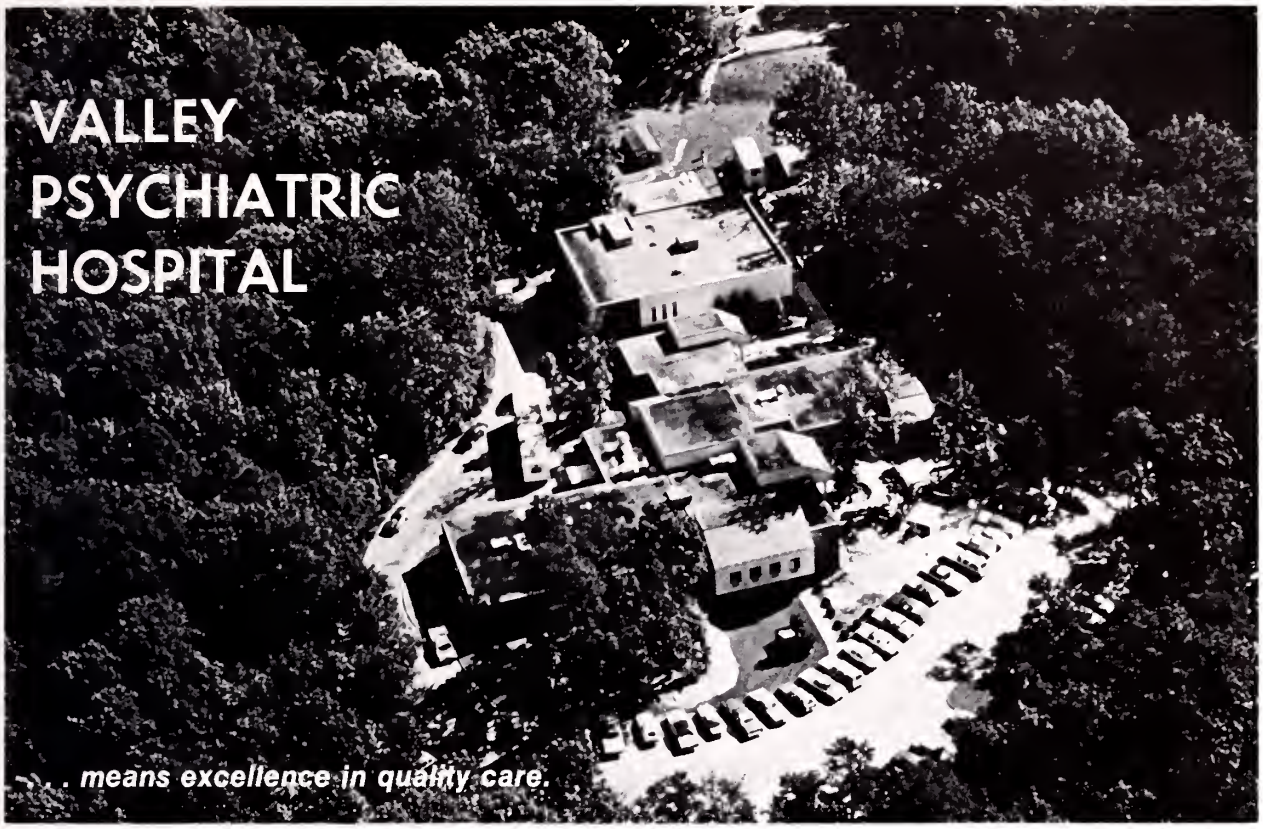
In Group B, however, the recidivism is not predictable beyond the usual rate which is applicable to non-mentally ill offenders, and there is no justification to equate relapse of illness with recurrence of criminal behavior.

The above categorization alerts the court as well as the professional staff to the high-risk group (Group A) and provides a more intense inquiry and scrutiny of such cases. Since the number of these cases is relatively small in comparison to Group B individuals, the processing of the majority of NGRIs can thus be accelerated, saving time and effort for all concerned as well as preventing unnecessary incarceration of individuals in the hospitals.[6] I believe that such categorization may provide realistic and professionally sound criteria to be used in the disposition of NGRI cases.

Admittedly, the recent publicity on the crimes committed by "the mentally deranged" or "former mental patients" has sensitized the courts and raised the consciousness of the community. One has to appreciate the extra scrutiny the courts must exercise to protect the interests and safety of society. As mental health professionals, however, it is our essential responsibility to provide the courts with sound, practical assistance derived from scientific and clinical experience and to rise above preconceived prejudices and erroneous assumptions.

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editorial

New Organs and Tissues, New Thoughts

". . . New occasions teach new duties,
Time makes ancient good uncouth . . ."

REVERENCE FOR THE DEAD is as old as mankind. We are told that to some extent archeologists designate a collection of bones as human or "humanoid" by whether or not they were formally buried. A crack military unit is expected to bring its dead back from an engagement. And, according to legend, of the three gifts brought to the infant Jesus by the Magi, one was an embalming medium.

A visitor from another world might ask why. He would be surprised that we go to so much trouble and expense to preserve something that can be used as neither food nor fertilizer. His curiosity would increase even more as he learned that our methods of preservation are, at best, temporary. But if he tried to force us to change our practices, he would learn quickly and violently that nothing is more deeply rooted in the customs of this planet.

Throughout most of man's history, until an eyeblink ago, no one was harmed by our awe of death. But in the mid 1950s, it became possible to replace diseased organs with healthy ones. Henceforth, and perhaps forevermore, the dead would become the only source of continued survival for some of the living.

Transplantation technology has become a prime theme for lay scientific articles and science fiction stories. More practically, it has stimulated a spate of legislative refinements of the definition of death. And Medicare will pay for kidney transplants. But mass attitudes change more slowly; in 1980, approximately 20% of Georgia applicants for drivers' licenses indicated a willingness to be organ donors. More significantly, only 56 kidneys were actually obtained and the number appears to be declining.

Through its Committee on Transfusions and Transplantations, the MAG is working with the Georgia Lions Eye Bank, The National Kidney Foundation of Georgia, and the Atlanta Regional Procurement Agency (AROPA) to increase the public's awareness of organ and tissue donation. Brief television and radio spots are being produced and will begin to be aired in October or November. An Atlanta Falcon, Jeff Yeates, is volunteering both his and his family's time to make these spots. The airing of these spots will coincide well with the ongoing football season.

The Auxiliary to the MAG is to figure prominently in this project, as they will be responsible for distributing these spots to radio and television stations throughout the state. This project represents a significant step in bringing together the various agencies involved in organ and tissue donation, the Auxiliary, and the MAG to increase the public's awareness about organ donation. Featuring this subject on the cover of this month's *Journal* is another way to bring this subject more attention and foster increasing understanding.

Georgia's doctors will continue to lead the public as it alters its opinions. Physicians will be the primary knowledge resource, and the painful task of asking the next-of-kin for the organs of their loved ones will usually fall on the doctor's shoulders. All of us need a thorough understanding of this sensitive issue, which is literally creating new mores in our society.

W. Frank Matthews, M.D.
Chairman, MAG Transfusion and
Transplantation Committee



heart page
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The Value of Limited Exercise Testing Soon After Myocardial Infarction

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ALTHOUGH THERE IS little disagreement among cardiologists on the need for cardiac catheterization and coronary angiography in post-myocardial infarction (MI) patients with evidence of left ventricular (LV) failure, angina, ventricular ectopic arrhythmias, etc., the indications for these studies in asymptomatic patients after acute, uncomplicated MI are not yet established. In such patients, detection of important coronary lesions, besides those of the occluded artery, may assist in deciding on the need for and the nature of subsequent treatment aimed at improving chances of survival. Because of the associated risk, however, one is hesitant to proceed with catheterization and coronary angiography unless there is good reason to definitely suspect multivessel disease. In this group of patients, a simpler, preferably noninvasive, technique is needed to identify those most likely to have widespread coronary artery lesions for whom coronary angiography would be the next logical diagnostic step.

Over the past few years, evidence has been accumulated indicating that limited exercise testing early after myocardial infarction may represent such a technique.[1-4] Typically, the test is carried out 3 weeks after an uncomplicated MI before the patient is discharged from the hospital. It is done on those patients who do not have resting or unstable angina, LV failure, major arrhythmias, systemic hypertension (BP $\geq$ 165/100 mm Hg), second degree or third degree A-V block, serious valvular heart disease, or musculoskeletal abnormalities. The patient's age and current treatment with digitalis or propranolol are not reasons for exclusion. The patient is requested to take a treadmill test with continuous ECG monitoring and frequent blood pressure (BP) measurements according to a suitably modified protocol involving uninterrupted 3-minute stages of gradually increasing speed and inclination. The test is terminated as soon as the target rate (120-130 beats/minute[3, 5] or 75% of age-predicted maximal rate[2]) is reached, or upon the appearance of symptoms or signs such as fatigue, marked dyspnea, angina, claudication, dizziness, frequent ($>$ 5/min) multiform premature ventricular contractions (PVCs) or couplets, ventricular tachycardia ($\geq$ 3 PVCs in a row), inadequate ($<$ 10 mm Hg) increase in BP, a fall in systolic BP in excess of 10-20 mm Hg from the peak value on continued exercise, or a hypertensive response with systolic BP $\geq$ 200 mm Hg or diastolic BP $\geq$ 110 mm Hg. Significant ($\geq$ 2 mm) ST segment depression alone is considered as end-point by some[2] but not all investigators,[1, 5] whereas ST

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segment elevation is not an indication for termination of the test. The test is considered positive if one or more of the following should appear: significant ST segment depression, angina, inadequate BP response, or excessive fall of BP during exercise.

Preliminary data indicate that the test is positive in about half the cases.[1-3] Multivessel coronary artery disease is found by coronary angiography in about 90% of patients with positive exercise tests, but only in 30% to 55% of those with negative tests.[2, 3] In the study of Schwartz, et al.,[2] the sensitivity of the test for the detection of multivessel disease was 55% and the specificity 56%. It also appears that the test provides diagnostic information of future cardiac events.[1, 4] Thus, the test was positive in all nine patients who subsequently experienced early cardiac events (death, recurrent MI, or angina), whereas no such cardiac events occurred in any patient with negative tests.[1] Moreover, angina developed during the follow-up period in 73% of patients with positive tests but only in 16% of those with negative tests.[3] A significant difference in the 2-year survival rate was also noted between patients who experienced angina during or upon termination of the test (54%) and those who did not (97%).

The elevation of the ST segment during exercise testing, commonly seen in the leads over the area of recent MI, is not deemed to be the consequence of exercise-induced myocardial ischemia, but is rather attributed to the abnormal motion of the recently infarcted LV wall.[2, 5] This view is supported by the results of a comparison of ST segment changes in two exercise tests carried out 3 weeks and again 6 weeks post MI.[1] Whereas the frequency of exercise-induced myocardial ischemia manifested by ST segment depression, angina, inadequate BP response or PVCs was similar in both tests, a marked decline in frequency of exercise-induced ST segment elevation was noted in the second test, presumably reflecting improved motion of the infarcted wall.

Conclusion

Although the indications for its use are not yet well established, limited exercise treadmill testing of asymptomatic patients early after uncomplicated myocardial infarction seems to present a safe and valuable method for obtaining diagnostically valuable information about both the presence of additional coronary arterial lesions and the prognostic significance pertinent to future cardiac events.

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The Right to Maintain an Action for the Death of an Unborn Baby: Statutory Interpretation, Judicial Policy-Making, and a Georgia Solution

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MANY INTERESTING QUESTIONS have arisen with regard to the legal status of a fetus, questions such as the right of a woman to obtain an abortion, the right of a fetus to inherit property under a will or by intestate succession, the ability of a fetus to recover for prenatal injuries, and the like. In addition, one of the more fascinating questions in this area deals with the right of a parent to maintain an action to recover for the wrongful death of an unborn baby.

In dealing with this question, courts have reached conflicting decisions. Some courts have found that a wrongful death action may not be maintained for the death of an unborn baby, while other courts have found that such an action may be maintained. Moreover, in reaching their decisions, courts have used a wide variety of legal and practical analyses, in some cases relying on statutory interpretation and legislative intent, and in other cases relying on judicial philosophy, logic, and public policy considerations.

Denial of Right to Maintain Wrongful Death Action

A recent Pennsylvania case[1] exemplifies those cases in which courts have denied the right to recover for the wrongful death of an unborn baby. In that case, a woman who was 8-months pregnant was injured in a head-on automobile collision. As a result of this accident, the baby died in utero and was stillborn 2 days later. The parents brought an action seeking to recover under the Pennsylvania wrongful death act for the loss of their unborn baby.

The Pennsylvania court, relying on the fact that the infant never obtained "an independent life in being," refused to authorize the maintenance of a wrongful death action. According to the court, while the requirement of live birth was in some sense an arbitrary requirement, the court must draw the line somewhere. In that regard, requiring a live birth had the advantage of establishing to a legal certainty that there had been a living person in existence. Moreover, the court felt that drawing the line at conception or viability or at any point other than live birth would not remove the element of arbitrariness but would merely relocate the difficulty while increasing the obvious difficulties of proof of causation and damages.

Other courts have reached the same conclusion — that a right of action for wrongful death of an unborn baby may not be maintained — using different reasons. For example, numerous courts have so concluded on the basis of a strict

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construction of the state's wrongful death statute. To these courts, the right to maintain a wrongful death action was not available with regard to an unborn baby because: (1) the statute applied to the death of a person, and was not intended to cover the death of a baby who was not born alive;[2] (2) the state legislature had expressly covered unborn babies in certain other statutes, but had not expressly referred to unborn babies in the wrongful death statute;[3] (3) the right to maintain an action under a wrongful death statute depended on the right which a person would have had to bring an action for personal injuries if death had not ensued, and an unborn baby would not have such a right;[4] and (4) an unborn baby was not a "person," "decedent," "minor person," or "minor child," for whose death an action was maintainable under the wrongful death statute.[5]

Still other courts have reached the same conclusion by relying not on statutory interpretation or legislative intent but on judicial philosophy, logic, and public policy considerations. To these courts, an action for wrongful death of an unborn baby could not be maintained because: (1) allowing such an action to be maintained where the infant was not born alive would increase the difficulty of proof of causation and damages and the possibility of fraudulent claims;[6] (2) damages recoverable in connection with an action for personal injuries sustained by the baby's mother provided adequate compensation, and to permit a wrongful death action to be maintained where a baby was not born alive might result in double recovery;[7] (3) an unborn baby was to be regarded as part of its mother and as not having a distinct legal personality or juridical existence;[8] and (4) a wrongful death action was no different from the law's protection of property rights of an unborn baby, which was generally contingent upon the baby's being born alive.[9]

Allowance of Right to Maintain Wrongful Death Action

Exemplifying the cases in which courts have allowed the right to recover for the death of an unborn baby is a recent Louisiana case[10] in which a 6-month-old fetus was born dead because the placenta separated prematurely when the mother was involved in an automobile accident. The court, in holding that an action for wrongful death could be maintained, found that it would be totally illogical for the cause of action to depend upon whether the fetus was stillborn or lived outside of the womb for a few minutes. The court also found that a decision not to recognize a cause of action when the baby was born dead would serve to benefit the person causing the injury, a result which would be inconsistent with the remedial purpose of the wrongful death statute.

Some courts have authorized the right to maintain a wrongful death action strictly on the grounds of statutory interpretation, because: (1) wrongful death statutes, being remedial, should be liberally construed;[11] (2) the legislature's express recognition and protection of the rights of an unborn baby in other areas evidenced a general intent to provide protection for unborn babies and thus supported the conclusion that the wrongful death statute should be applied to unborn babies;[12] (3) the ability to maintain an action under a wrongful death statute depended on the right to bring an action for personal injuries if death did not ensue, and an unborn baby had such a right;[13] and (4) the unborn baby was a "person," "child," or "minor child," for whose death an action was maintainable under a wrongful death statute.[14]

Still other courts have based decisions authorizing the maintenance of an action for a wrongful death of an unborn baby on public policy considerations, including: (1) the fact that the weight of modern authority was in favor of permitting a wrongful death action to be maintained;[15] (2) from a biological, medical, and legal standpoint, an unborn baby was not merely a part of its mother, especially where the unborn infant had become viable;[16] (3) difficulty in proof of causation and damages and the possibility of fraudulent claims were not valid reasons for denying recognition of an otherwise valid cause of action;[17] and (4) premising the right to maintain a wrongful death action on the question of whether or not the baby is born alive was arbitrary, illogical, and unjust.[18]

The Right to Maintain an Action for Wrongful Death of an Unborn Baby in Georgia

The courts in Georgia have taken a novel and well-reasoned approach to the question of whether or not a wrongful death action can be maintained for the death of an unborn baby. The applicable Georgia statutes provide little guidance, in that they simply authorize the right to recover for the "homicide" of a "child" ("homicide" is defined in the statute to include death caused both by a crime and by negligence).[19] In construing these statutes, however, Georgia courts have concluded that a wrongful death action may be maintained if the baby was "quick" at the time of its death — that is, an action may be maintained if the fetus was able to move in its mother's womb at the time of its death.[20]

According to the Georgia courts, there are several reasons for basing the right to maintain a wrongful death action on the concept of "quickening," rather than on some other concept such as conception, viability, or actual life. Initially, these courts have relied heavily upon the general authorities of the English common law (the law which serves as the basis for the common law established in the U.S.), which indicate that "life is the immediate gift of God, a right inherent by nature in every individual; and it begins in contemplation of law as soon as an infant is able to stir in the mother's womb."[21] Secondly, Georgia courts have been impressed by the fact that the question of whether or not a fetus is "quick" is a factual question, the answer to which is relatively easy to ascertain. Therefore, in terms of the age-old question of, "Where do you draw the line?," the Georgia courts have opted to draw the line at a place where the difficulties of proof of causation and damages may be negated and where the court's concern with compensation for a distressing wrong in the loss of a baby may be dealt with.

Conclusion

The reconciliation of the problem of whether an action may be maintained for the wrongful death of an unborn baby adopted by the courts in Georgia appears to be based on sound judicial reasoning. While the test adopted in Georgia results in allowing the maintenance of an action for the death of an unborn baby at a time prior to viability or actual life, it is in line with the modern weight of authority in construing remedial statutes of this type; it would appear that there would be no greater justification for permitting an action where a baby is born alive and then dies after only a brief period of time, as opposed to the situation in which the fetus, while being "quick," dies before being born. In addition, the position taken by courts in Georgia avoids the anomalous result of allowing an unborn baby who was badly injured by the tortious act of another, but who was born alive, to recover, while an unborn baby who was more severely injured and died as a result of a tortious act of another could recover nothing.

Notes

1. *Scott v. Knopp*, 50 U.S.L.W. 2055 (Pa. Sup. Ct., July 8, 1981).
2. See, *e.g.*, *Bayer v. Suttle*, 23 Cal.App.3d 361, 100 Cal.Rptr. 212 (1972); *Hogan v. McDaniel*, 204 Tenn. 235, 319 S.W.2d 221 (1958).
3. See, *e.g.*, *Endresz v. Friedberg*, 301 N.Y.S.2d 65 (1969).
4. See, *e.g.*, *State ex. rel. Hardin v. Sanders*, 538 S.W.2d 336 (Mo. 1976).
5. See, *e.g.*, *Duncan v. Flynn*, 342 So.2d 123 (Fla. App. Ct. 1977); *McKillip v. Zimmerman*, 191 N.W.2d 706 (Iowa, 1971).
6. See, *e.g.*, *Scott v. Knopp*, *supra*.
7. See, *e.g.*, *Carroll v. Skloff*, 415 Pa. 47, 202 A.2d 9 (1964).
8. See, *e.g.*, *Youman v. McConnell & McConnell, Inc.*, 7 La.App. 315 (1927).
9. See, *e.g.*, *Drabbels v. Skelly Oil Co.*, 155 Neb. 17, 50 N.W.2d 229 (1951).
10. *Danos v. St. Pierre*, 50 U.S.L.W. 2054 (La. Sup. Ct., July 2, 1981).
11. *Ibid.*
12. See, *e.g.*, *Todd v. Sandidge Constr. Co.*, 341 F.2d 75 (4th Cir. 1964).
13. See, *e.g.*, *Britt v. Sears*, 150 Ind.App. 487, 277 N.E.2d 20 (1971); *O'Neill v. Morse*, 385 Mich. 130, 188 N.W.2d 785 (1971).
14. See, *e.g.*, *Eich v. Gulf Shores*, 293 Ala. 95, 300 So.2d 354 (1974).
15. See, *e.g.*, *Hale v. Manion*, 189 Kan. 143, 368 P.2d 1 (1962).
16. See, *e.g.*, *Maniates v. Grant Hospital*, 15 Ill. App. 3d 903, 305 N.E.2d 422 (1973).
17. *Danos v. St. Pierre*, *supra* n. 10.
18. See, Annotation, 84 A.L.R. 3d 411, at §3[a]. 19. *Ga. Code Ann.* §§105-1301, 105-1307, 74-108.
20. *Shirley v. Bacon*, 154 Ga.App. 204 (1980); *Porter v. Lassiter*, 91 Ga.App. 712 (1955).
21. Blackstone's Commentaries on the Laws of England, Vol. I, page 130, as quoted in *Tucker v. Carmichael & Sons, Inc.*, 208 Ga. 201 (1951).

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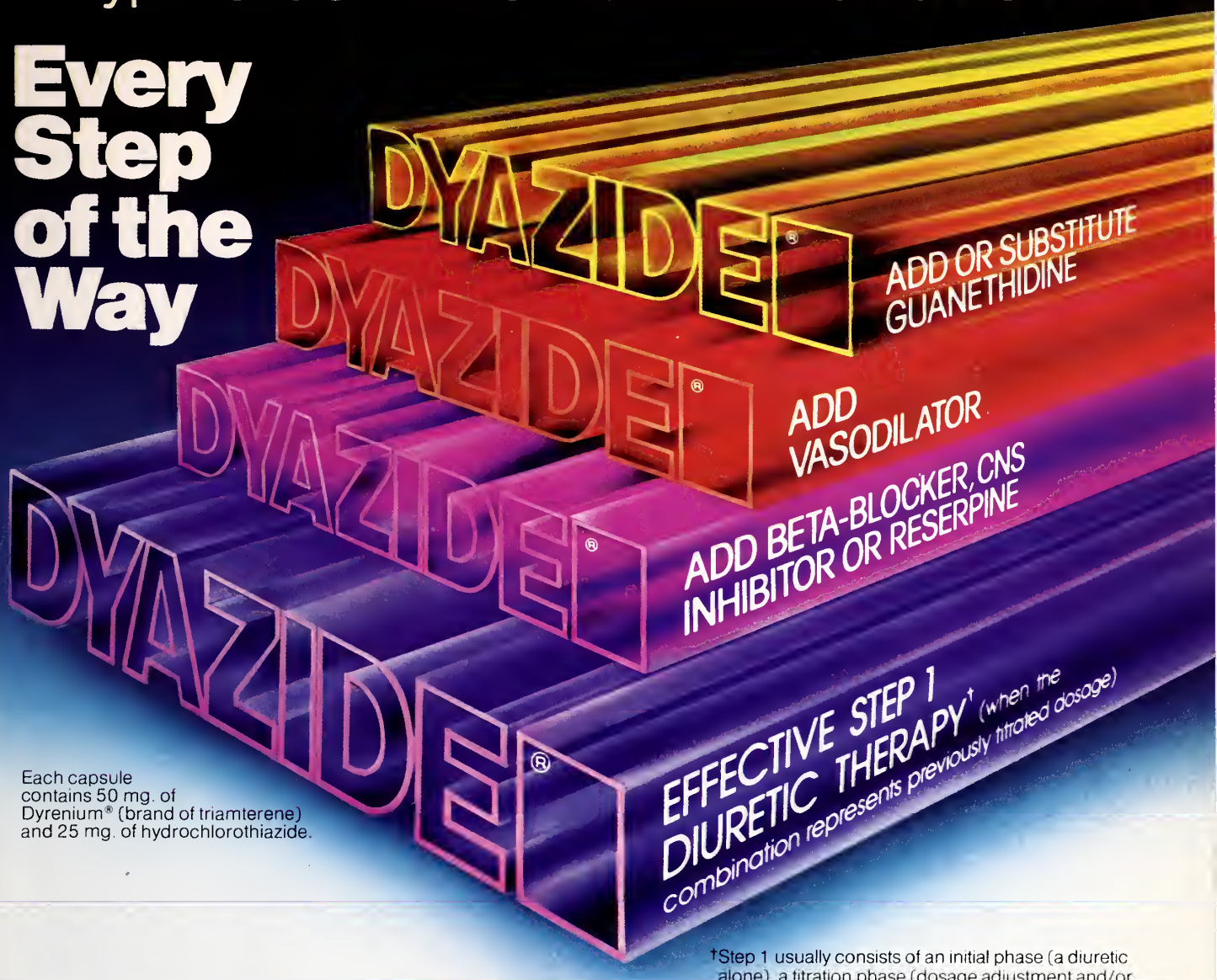
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Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently, both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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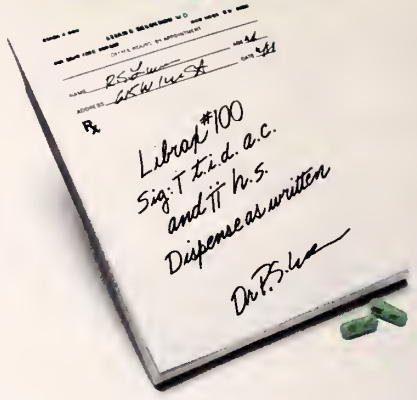
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Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

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References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med* 298:878-883, Apr 20, 1978. **2.** Snape WJ *et al*: *Gastroenterology* 72: 383-387, Mar 1977.

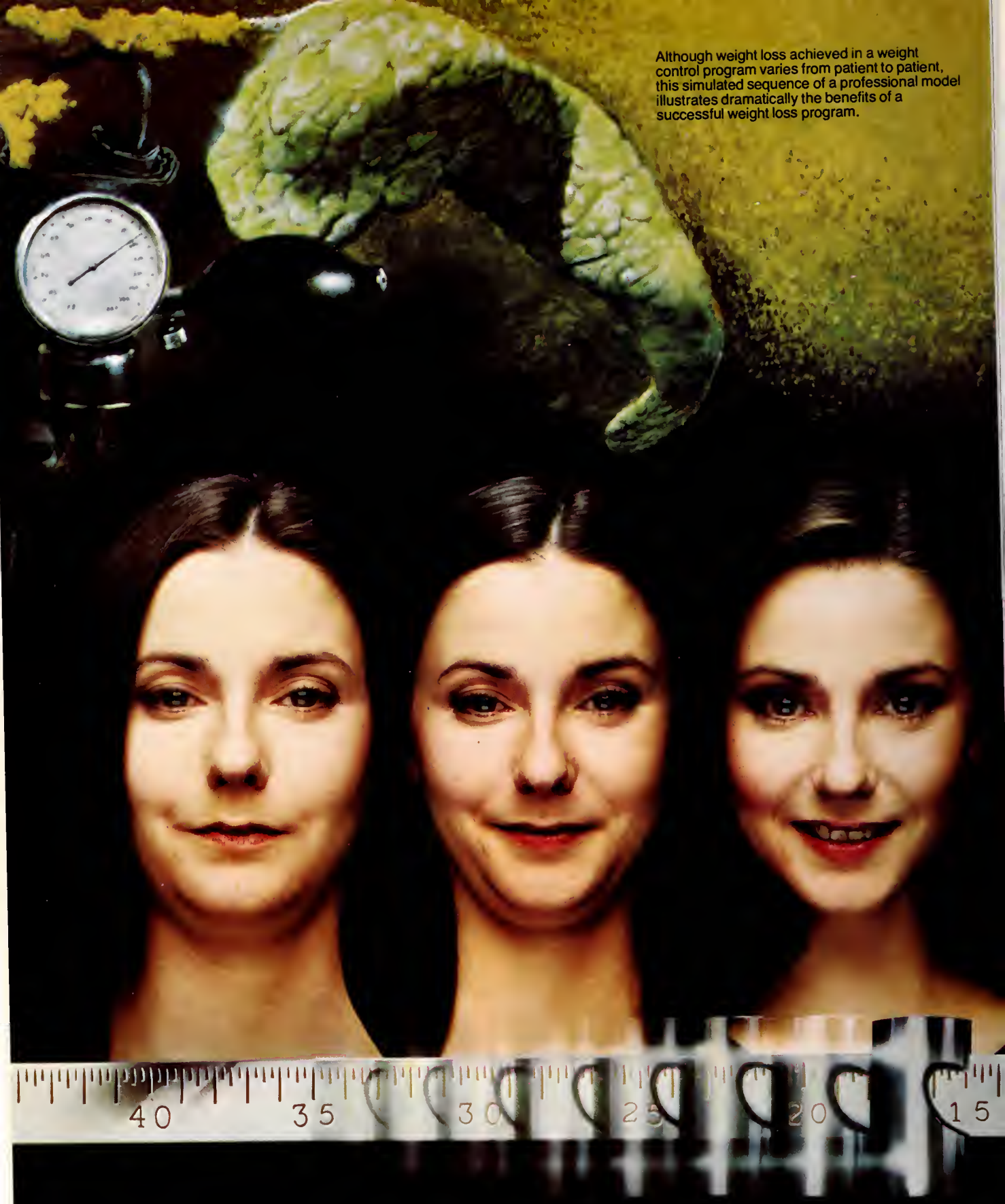
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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York Raven Press, 1978, pp. 391-404.

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(diethylpropion hydrochloride USP)
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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect, rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular.* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System.* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System.* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

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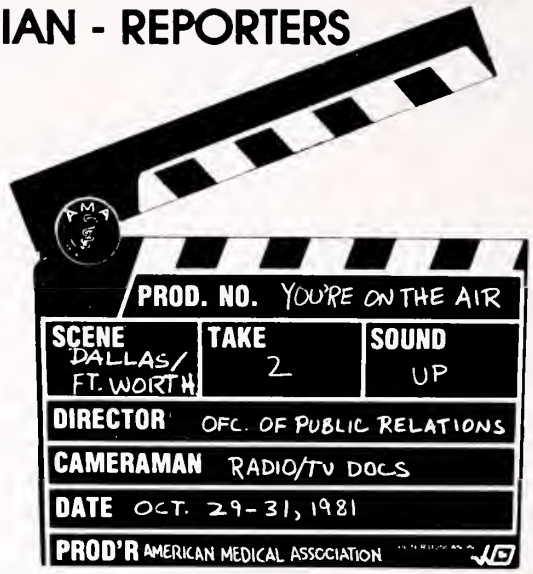
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Early and Late Detection of Cancer in Metropolitan Atlanta

PATRICE KNUTSEN, R.R.A., and JEANNE A. PETREK, M.D., *Atlanta**

Introduction

A CANCER PATIENT's chance of survival depends largely on when his/her disease is detected. Detection at an early stage is generally felt to be second only to prevention as the primary means of reducing cancer morbidity and mortality. Because the exact causes of most cancers are not known, prevention is virtually impossible. (Lung cancer is the most likely exception.) While cancer prevention awaits breakthroughs in research, early detection can be achieved through public health education: teaching and motivating people, establishing follow-up and referral programs, etc.

In order to determine the stage of cancer at the time of initial treatment in the metropolitan Atlanta area, we compared cancer patients' records at Grady Memorial Hospital to those at all other hospitals in the Fulton-DeKalb area. The three most common cancers, lung, breast, and colorectal, and cancers classified as unknown primary site were chosen for this statistical analysis. The most recent data available, that for 1979, were obtained from the Atlanta Cancer Surveillance Center, an NCI/SEER (National Cancer Institute/Surveillance, Epidemiology, and End Results) program that collects cancer statistics on metropolitan Atlanta residents.

Results

In Table 1, the percent that each cancer contributed to the total cancer incidence at Grady and all other metro hospitals is listed. Lung, breast, and colorectal cancer constituted 34.4% of all cancers at Grady and 38.1% of all cancers at the other hospitals. The incidence of unknown primary site was almost twice as high at Grady (4.5% vs. 2.6%). A total of 16.4% of all cancer cases at Grady was in the lung; the percent was slightly less at the other hospitals.

TABLE 1 — Incidence of Four Kinds of Cancer at Grady Memorial Hospital and Other Hospitals in the Fulton-DeKalb County Area, Atlanta, 1979

	Grady Hospital (% of Incidence)	Other Fulton-DeKalb Hospitals (% of Incidence)
Lung	16.4	14.0
Breast	9.7	13.3
Colorectal	8.2	10.8
Unknown	4.5	2.6

Ms. Knutsen is a Tumor Registrar at Grady Memorial Hospital; Dr. Petrek is Assistant Professor of Surgery, Emory University School of Medicine, and Attending Surgeon at Grady Memorial Hospital and Crawford W. Long Hospital. Send reprint requests to Dr. Petrek, Emory University School of Medicine, 69 Butler St., SE, Atlanta, GA 30303. Prepared at the request of the Georgia Division, American Cancer Society. Others wishing to contribute papers to this page are invited to send them to David B. Roberts, M.D., 2400 13th St., Columbus, GA 31906.

TABLE 2 — Incidence of Distant Metastases at Presentation at Grady Memorial Hospital and Other Hospitals in the Fulton-DeKalb County Area, Atlanta, 1979

	Grady Memorial Hospital (% of Incidence)	Fulton-DeKalb Hospitals (% of Incidence)	Statistical Difference (P)
Lung	52.6	42.2	<.05
Breast	29.0	4.5	<.001
Colorectal	22.4	20.3	n.s.

In Table 2, the percentage of patients who presented with distant metastatic disease is listed. About 10% more patients at Grady had secondary disease from lung cancer. The patients with colorectal cancer had almost the same incidence of secondary disease at Grady as at the other hospitals. Almost one-third of the breast cancer patients at Grady presented with distant metastatic disease, compared to 4.5% of those at other institutions.

Lung Cancer

Lung cancer was almost as common at the other hospitals as it was at Grady. According to the ACS, the American black male population has the largest number of present or past cigarette smokers (55%). The figures for the rest of the population are: white male (40%), black female (32%), white female (30%).[1] About 10% more patients at Grady presented with secondary disease than at the other metro-area hospitals; this corresponds with the ACS's statement above. Primary lung cancer may not be the ideal type of cancer for which to notice a large difference in late presentation between the two groups because it tends to metastasize early and run its course rapidly.

Breast Cancer

Breast cancer is reported to be slightly less common in black women than in white women, and these data do not refute that.[2] Only 30.4% of Grady patients, however, had localized disease (negative lymph nodes and no extension to the fascia), compared with 48.6% of patients at the other hospitals. Moreover, 29% of Grady patients presented with distant metastatic disease, as opposed to 4.5% at the other hospitals. Slightly more than 1% of all Grady breast cancer patients (41 in the past 5 years) presented with skin ulceration.

Colorectal Cancer

The stage of presentation of colorectal cancer in 1979 was similar in both groups — with 20-22% having distant metastatic disease. This lower incidence of advanced disease may result from the more alarming and urgent symptoms associated with colorectal cancer which cause patients to seek medical care earlier than do the symptoms associated with breast cancer.

Unknown Site Cancer

The unknown site was chosen to check for a difference between the two groups. These patients usually presented with such widely disseminated disease that it was impossible to determine the site of origin. The unknown site occurred approximately twice as often in the Grady population.

Discussion

Grady Memorial Hospital, the main teaching institution for Emory University, is a county-supported facility with over 1,000 beds. The patient population is approximately 80-85% black. The hospital treats a large proportion of the inner city poor and disadvantaged. It is important to review the major aspects dealing with cancer at this institution because Grady evaluates and cares for a large number (16% in 1979) of cancer cases. There are 22 other hospitals in the metro area.

One might suppose that the two populations had been exposed to similar television, radio, newspaper, and magazine information about the benefits of early cancer detection. This is apparently not true. The ACS reported that in 1977 cancer mortality was highest for black males (about 200/100,000), followed by white males (155/100,000), black females (123/100,000), and white females (107/100,000). The ACS estimated that "of patients diagnosed while the cancer is still localized, the number is approximately 10 percent higher for whites than for blacks."[1] Conversely, in advanced cancer, the number is higher in blacks. The later stage of the disease at the time of diagnosis is probably the most important factor contributing to the increased cancer mortality among blacks. The increased number of blacks who smoke may also be a significant factor.

The differences between the two study groups are more marked for breast than for lung or colorectal cancer. One reason for this may be that it is easier to ignore a painless breast lump than to ignore rectal bleeding, increasing constipation, or abdominal pain, as in the case of colorectal cancer. A woman with a breast lump may have to wait several weeks to complete the "process of detection," that is, to go through the steps necessary to determine the nature of the lump: a clinic appointment, a mammogram, and a biopsy. This delay is often inconvenient and often deters her from seeking an examination until her symptoms become more alarming. The delays are not as long at Grady as at some other large municipal hospitals — but it may still be a factor in late detection.

Even so, the ACS reports that only 81% of urban black women and 70% of urban Hispanic women know that a lump in the breast may be a symptom of cancer (compared to 95% of the total national population). About 70% of black women (compared to 50% of the total population) believe that a blow or injury to the breast can cause breast cancer. Only 30% of black women, compared to 53% of white women, know of mammography.

A partial explanation for the lower rate of early detection may be that the black population underestimates the prevalence of cancer and overestimates cancer lethality, as revealed in another recent ACS study. Although about 25% of blacks and whites will get cancer, 73% of the blacks think they are not likely to, compared to 63% of whites.[3] Dr. LaSalle Leffall, Surgery Chairman at Howard University School of Medicine, states that many blacks regard cancer, along with heart disease, as a white man's disease. According to him, blacks also tend to believe such myths as "surgery helps spread cancer."[4] This points up the need to concentrate public health education in the black community. To this end, the ACS is planning to use church, youth, and other community groups as public education tools to reach more blacks with information about cancer.

Summary

Lung cancer is the leading cause of cancer death in the Grady population, and its incidence has increased 400% in American blacks in the past 25 years. The experience at Grady seems to indicate that among inner city blacks, cancer mortality is largely due to the advanced stage of the disease at the time of diagnosis. In some cancers, for example, colorectal cancer, the symptoms are clear and pressing enough to bring the patient to the doctor right away. In other cancers, however, notably breast cancer, examinations are often delayed. The ACS is making new efforts to reach the black community about cancer's warning signs.

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3. Black Americans' attitude toward cancer and cancer tests: highlights of a study. Ca J Clinicians 1981;31:212-218.
4. Interview. Medical Tribune. April 8, 1981.

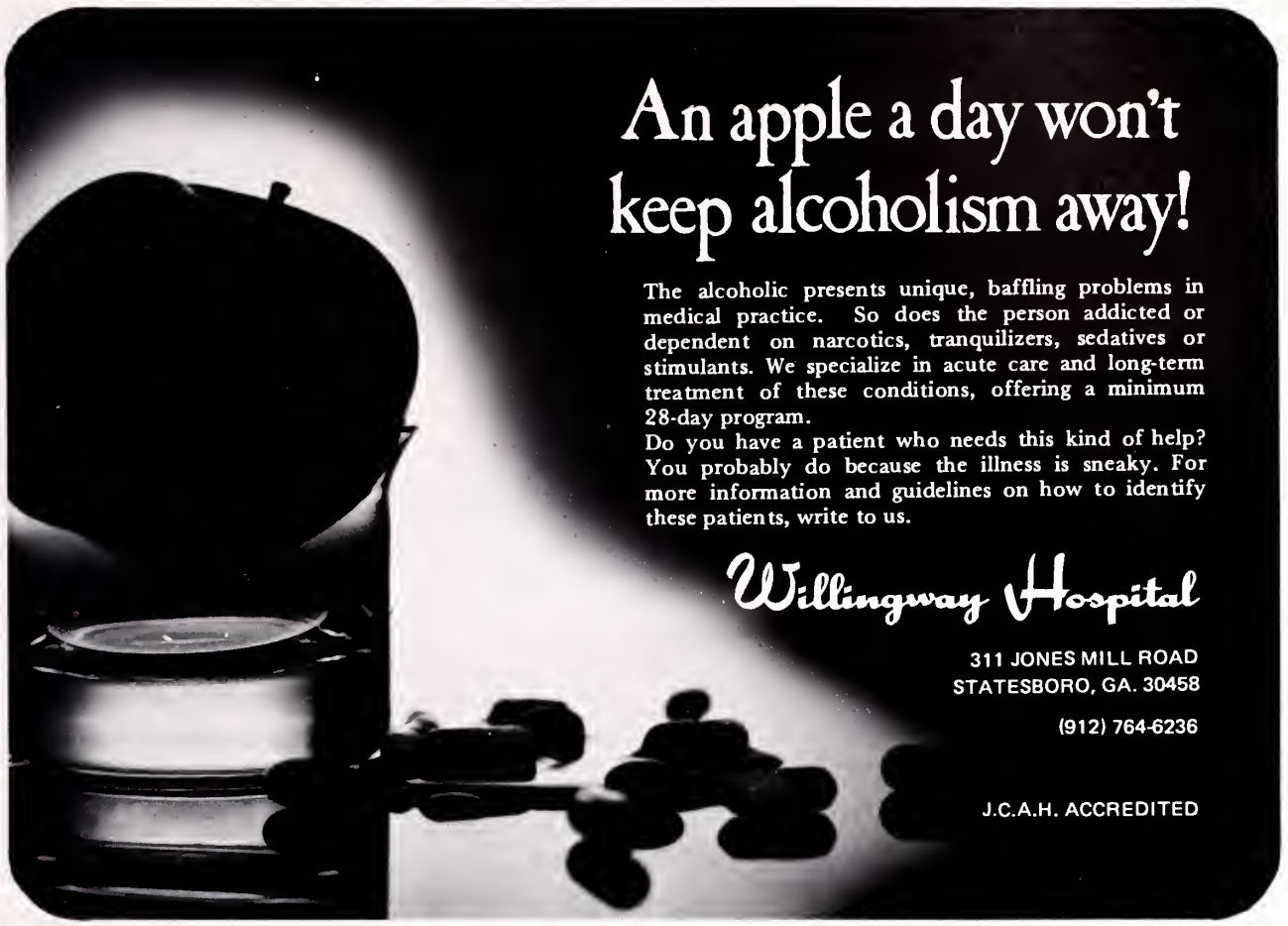
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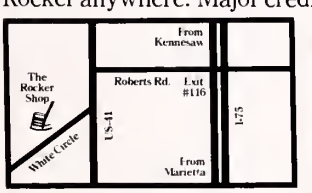
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president's letter



Timely Communication — A Necessary Adjunct to Effective Patient Care

"May I talk with you for a few minutes?" a patient asked me recently. "I want to discuss something with you but I want you to promise not to do or say anything about it." He explained that during his recent 14-day hospitalization, at which time I had removed a tumor from his lung, his family physician had visited him daily and had subsequently sent him a bill for over $400.00 for services rendered. The patient went on to tell me that his previous family physician, who was now retired, had come to see him "as a friend" on several previous hospitalizations and had never charged him for these visits. My patient wanted to know how his current family physician had become involved in the hospitalization and what services he might have performed of which he (the patient) was not aware.

I explained to him that I had advised his family physician, a highly skilled internist, of his impending hospitalization and of my tentative plans for surgical resection of the tumor. I had not asked him to do anything specific but expected him to monitor and support the patient and to help diagnose and treat any complications that might occur. I regretted, of course, not having explained all this to my patient before his operation.

He said finally that although he would certainly pay the bill and say nothing to his family physician, he really felt that some sort of governmental or other "outside" agency should monitor this type of physician activity which he sincerely believed to be unethical, immoral, and without justification.

As I tried to explain to him why I had notified his family physician of the hospital admission and what I expected him to do, I realized that the whole area of responsibility and assignment of tasks in the care of a patient involving more than one physician needs to be clearly understood by both the physicians involved as well as the patient. Financial charges should reflect specific services rendered and the amount of responsibility assumed. I strongly suspect that, like me, other physicians have sometimes failed to adequately explain to their patients these "details" prior to surgery or other procedures involving another physician. I hope that you will join me in a concerted effort to become increasingly effective in this timely, necessary communication.

L. Newton Turk III MD

L. Newton Turk, III, M.D.
President, M.A.G.

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Figueredo, Jorge V., Douglas—ACT—GS
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Kim, Sooil, Clayton-Fayette—ACT—IM
1019 Astor Ave., Forest Park 30050

Lewis, James W., Dougherty—ACT—N-2—PTH
417 Third Ave., Albany 31703

Livingston, James A., Bibb—ACT—N-2—FP
P.O. Box 590, Byron 31008

Negrin, Neil J., Douglas—ACT—N-2—FP
756 Fox Hollow Parkway, Marietta 30067

Ramanujeyam, P., Wilkes—ACT—IM
121-A Gordon St., Washington 30673

Varnadore, Joseph G., Ware—ACT—N-2—FP
111 Colonial Way, Jesup 31545

PERSONALS

Second District

Two Thomasville physicians are moving their practices to larger office buildings within the Thomasville area. **William Z. Bridges, M.D.,** and **John F. Payne, M.D.,** each plan to move in December.

George Rawlins, M.D., opened a new emergency clinic in July, the Albany Emergency Center, at 1107 13th Ave. in Albany.

Third District

Charles E. McArthur, M.D., of Cordele, was honored recently at a dinner for his 50 years medical service to Crisp County.

Fourth District

George R. Gottlieb, M.D., joined the staff of Gwinnett Community Hospital in Snellville as the first asthma and allergy specialist. In addition to his Decatur office, where he has practiced for the past two years, he recently opened an office adjacent to the Gwinnett Community Hospital.

F. A. Sams, Jr., M.D., in Fayetteville, and the Sams family were honored by a feature historical article written in a July 30th edition of the local newspaper.

Fifth District

Psychiatrist **Ilhan M. Ermutlu, M.D.,** of Atlanta, was named Director of the Division of Mental Health and Mental Retardation of the Georgia Department of Human Resources on August 5. In addition to his private practice, Dr. Ermutlu is an associate professor of psychiatry at Emory Univ. School of Medicine and a consultant of Grady Memorial Hospital's Psychiatry and Law Service.

Clinton D. McCord, Jr., M.D., of Atlanta, is the editor of a new 400-page text book, *Oculoplastic Surgery,* which is scheduled for publication on Oct. 1, 1981. Also, Dr. McCord will be the moderator for an interdisciplinary panel of plastic surgery in ophthalmology at the October, 1981, meeting of the American College of Surgeons in San Francisco.

Sixth District

On June 8, **Frank P. Bowyer, M.D.,** pediatrician, became the new Chief of Pediatrics at the Medical Center of Central Georgia in Macon. He has practiced medicine in Tifton for the last 7 years, and was Chief of Pediatrics at Tifton General Hospital for 5 years.

Internist **Eugene R. Long, M.D.,** accepted a position with the Clark Holder Clinic in LaGrange in July, 1981.

Matthew Powell, M.D., was named Emergency Room Director of Peach County Hospital as of July 23, 1981.

Family practitioner, **W. Stephen Taunton, M.D.,** opened an office at 100 Culloden Rd. in Macon on July 13.

Seventh District

Pediatrician, **Eduardo Montana, M.D.,** opened an office at 9293 Hwy. 5 in Douglasville in July. His other office is located at 1660 Mulkey Rd. in Austell.

As part of a program entitled Project U.S.A., which provides medical care in rural communities, **Robert Mainor, M.D.,** a family practitioner from Smyrna, spends 3-weeks every summer providing health care to Indians on reservations in the western states. He has participated in this program for the last 5 years.

Eighth District

P. K. Batra, M.D., general and vascular surgery specialist, reopened his office, August 11, in Baxley. After a year's leave of absence to attend the Lutheran Medical Center in Brooklyn, NY, Dr. Batra completed his Fellowship in vascular and chest surgery.

Ninth District

Lamar H. Waters, M.D., internist in Clarkesville, was recently elected to the American Heart Association's State Board of Directors.

Internist, **William Earley, M.D.,** opened a practice in Canton the first of August.

Tenth District

Chief of reproductive endocrinology and genetics at the Medical College of Georgia (MCG), **Paul McDonough, M.D.,** was awarded a Fogerty Senior International Fellowship for a year's study in Paris. He left his post at MCG in August to begin his study.

Romulo L. Parungao, M.D., of Conyers, was recently elected President of the Philippine-American Medical Association of Georgia (PAMAG) at Hilton Head Island for 1982-84. He is also the incoming President of the Kiwanis Club of Rockdale County for 1982. Dr. Parungao is one of the 11 Board of Directors of the Rockdale Savings and Loan Association, which is the first state stock savings and loan in Georgia.

SOCIETIES

As of July, Wilton B. Reynolds, Jr., M.D., is the new President of the **Decatur-Seminole County Medical Society.**

NOTABLES

"On the Wings of Fashion 1981," was presented in July by the Auxiliary to the Atlanta Medical Association and Neiman-Marcus. Proceeds from the fashion show, over $41,000, will go toward a medical scholarship fund for Georgia medical students.

DEATHS

Michel A. Glucksman

New York native and St. Simons physician, Michel A. Glucksman, M.D., died Monday, August 3, at age 52.

Dr. Glucksman moved to Glynn County 13 years ago from Elkins, WV. He received his Bachelor's degree from Swarthmore College. He also graduated from New York University, the University of Buffalo Medical School, and John Marshall Law School.

He was a member and past president of the Glynn County Medical Society and a member of the Board of Directors of the MAG. He was a member of the AMA, past president of the Georgia Medical Care Foundation, and member of the American Urological Association.

Survivors include his wife, three daughters, his mother, two brothers, two grandchildren, and several nieces and nephews.

Oliver W. Jenkins, Sr.

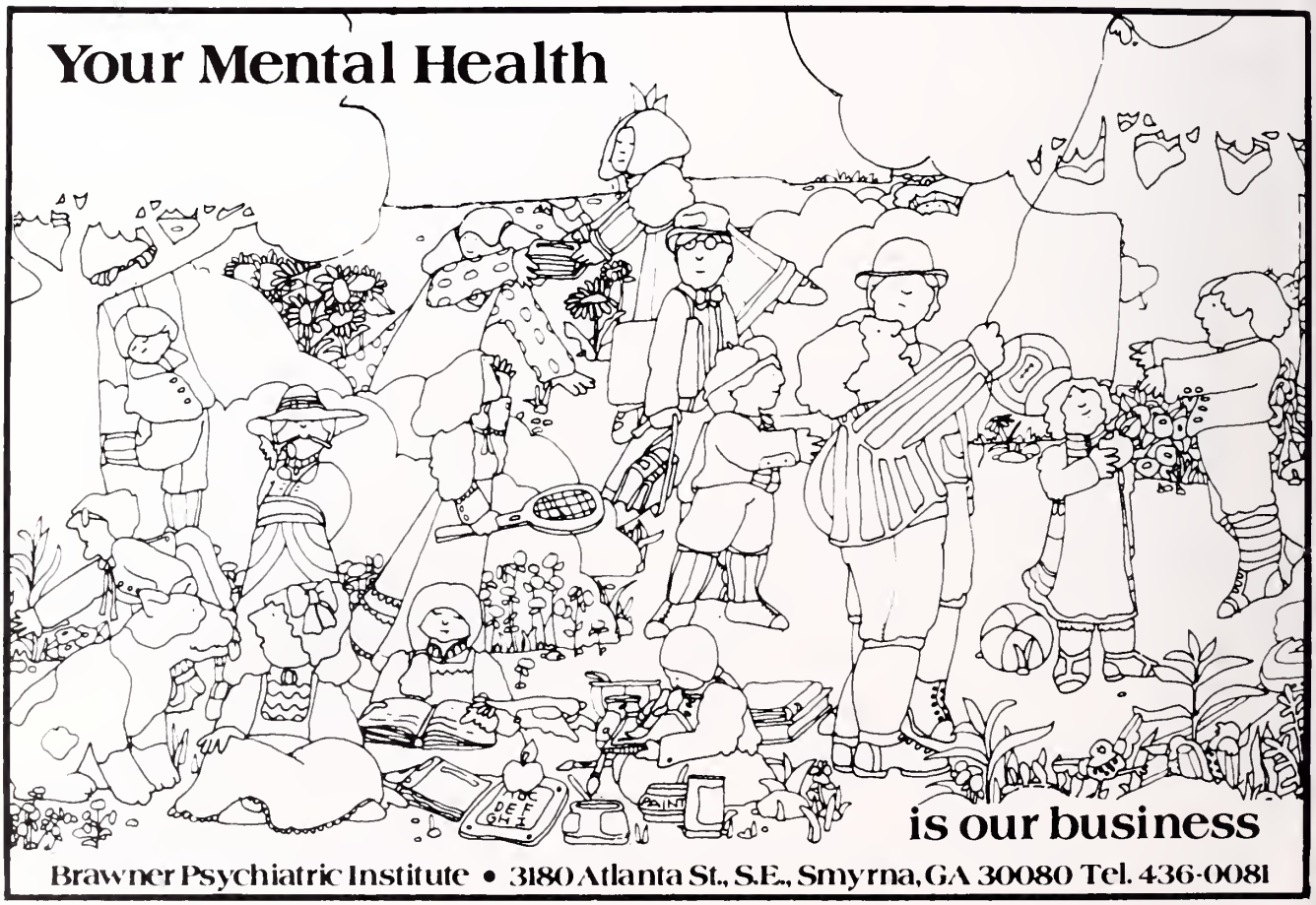
Family physician, Oliver W. Jenkins, Sr., of Lindale, died July 27, at age 76, in the Floyd County Medical Center after a long illness. Dr. Jenkins was born in Calhoun County and was a leading physician in the Lindale area for about 40 years.

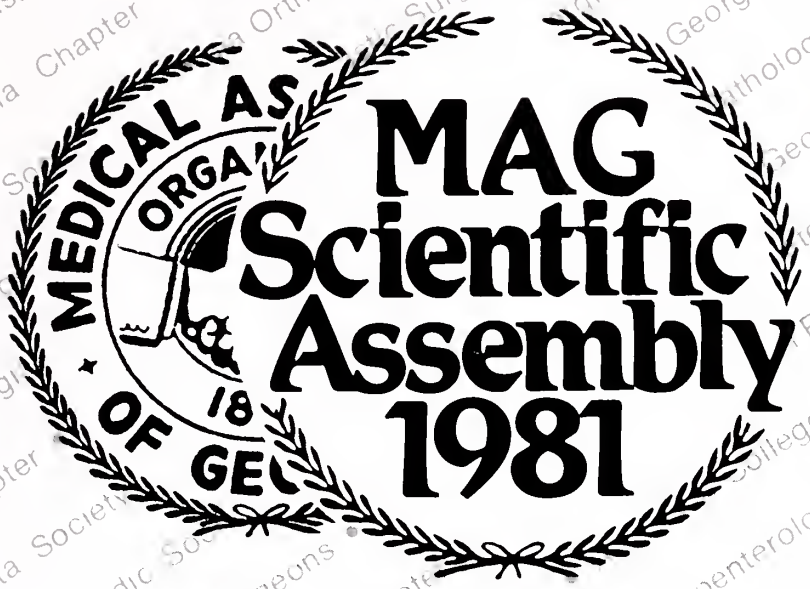
Survivors include his wife, two sons, one daughter, and eight grandchildren.

Roy D. McCollum, Jr.

At the age of 70, Roy R. McCollum, Jr., M.D., of Kingsland, died following a brief illness. Dr. McCollum graduated from Richmond Academy, the University of Georgia, and the University of Georgia School of Medicine. He had practiced general medicine and surgery in Kingsland since 1935.

Survivors include two daughters, one son, and four grandchildren.





Specialty societies come together.

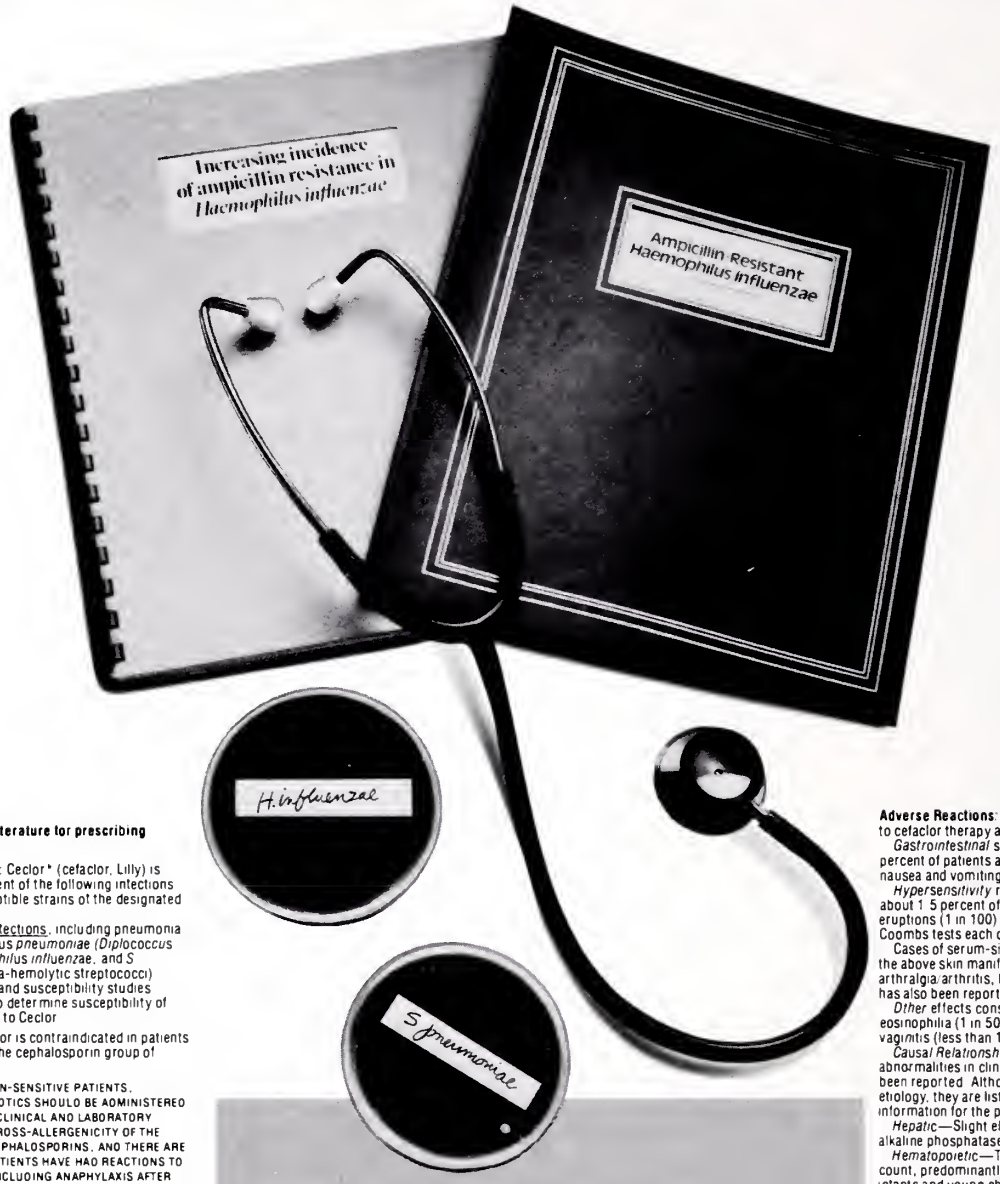
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An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cecior.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cecior.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Brief Summary
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae.*

Note Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1 Antimicrob Agents Chemother , *8*:91, 1975
2 Antimicrob Agents Chemother , *11*: 470, 1977.
3 Antimicrob Agents Chemother , *13* 584, 1978
4 Antimicrob Agents Chemother , *12*:490, 1977.
5 Current Chemotherapy (edited by W Siegenthaler and R Luthy), II: 880 Washington, D.C American Society for Microbiology, 1978
6 Antimicrob Agents Chemother , *13* 861, 1978
7 Data on file, Eli Lilly and Company
8 Principles and Practice of Infectious Diseases (edited by G L. Mandell, R G. Douglas, Jr., and J E Bennett), p 487. New York: John Wiley & Sons, 1979

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and phoryngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonio caused by *S. pneumoniae* (formerly *D. pneumaniae*)
Otitis media coused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chranic bronchitis caused by *H. influenzoe**
*Though clinical improvement hos been shown, bocteriologic cures cannot be expected in oll patients with chronic respiratary disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentory) infectians caused by Group A beto-hemolytic streptococci and stophylococci, non-penicillinose producers.
URINARY TRACT INFECTIONS coused by *E. coli* and *P. mirabilis*. (This drug should not be used in ony *E. cali* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initiolly ond during treatment to manitor effectiveness of therapy ond susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Controindicoted in individuals with history of an allergic reoction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics moy promote overgrowth of nonsusceptible orgonisms. If superinfection occurs, toke appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies perfarmed in mice and rats at doses up to 10 times the humon dose revealed no evidence of impoired fertility or horm to the fetus due to cyclacillin. There are, however, no odequote ond well-cantralled studies in pregnont women. Because onimol reproduction studies are nat olways predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs ore, exercise coution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generolly well toleroted. As with other penicillins, untoward sensitivity reactions ore likely, porticulorly in those who previously demonstroted penicillin hypersensitivity or with history af allergy, osthma, hoy fever, or urticoria. Adverse reactions reported with cyclacillin: diorrheo (in approximotely 1 out of 20 patients treated), nouseo ond vomiting (in opproximotely 1 in 50), and skin rosh (in opproximotely 1 in 60). Isoloted instances of headache, dizziness, obdominol poin, vaginitis, ond urticoria have been reported. (See WARNINGS) Other less frequent odverse reoctians which may occur ond ore reported with other penicillins are anemia, thrombocytopenio, thrombocytopenic purpura, leukopenia, neutropenio and easinaphilia. These reactions ore usuolly reversible on discontinuatian of therapy.
As with other semisynthetic penicillins, SGOT elevotions have been reported.
As with ontibiotic therapy generolly, continue treatment at leost 48 to 72 hours ofter patient becames osymptomatic or until bacterial eradication is evidenced. In Graup A beto-hemolytic streptococcal infections, ot least 10 days' treatment is recommended to guard against risk of rheumotic fever or glomerulonephritis. In chranic urinary troct infection, frequent bacteriologic ond clinical appraisal is necessary during theropy ond possibly for severol months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicoted in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renol function. Due to prolonged serum hoff-life, patients with various degrees af renal impoirment may require chonge in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratary Tract Tonsillitis & Phoryngitis	250 mg q.i.d	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dasage should not result in a dose higher than that for adults.
†depending on severity

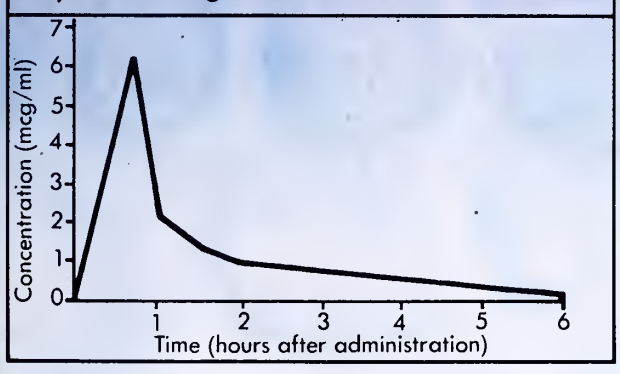
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Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{o} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

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Classifieds

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Industrial Physicians, Associate Medical Director, and **Staff Physician** needed for expanding Atlanta Industrial Clinic. Send resume to Box 5-A, c/o the *Journal*.

Ideal Partnership Available. Progressive pediatrician needs partner; large, growing 3-year-old practice. Beautiful city, 35,000 population near Atlanta. Send resume to Pediatric Health Center, 309 Vernon St., LaGrange, GA 30240, or call 404/882-6525, Aaron S. Goldberg, M.D.

Internist — Board Eligible/Certified generalist wanted to join established group of three internists and three surgeons. Excellent Southeastern Tennessee location. Starting salary negotiable, leading to full corporate participation. Box 10-A, c/o *Journal*.

Emergency Medicine Opportunities: Clinical and Directional positions available in central and coastal Georgia. Excellent compensation, paid malpractice insurance, and flexible scheduling according to individual needs. For details, send credentials in confidence to Mary Obsitnik, 9100 Purdue, Suite 119, Indianapolis, IN 46268, or call collect 317-875-7518.

SITUATIONS WANTED

Internist, 25 years experience, wants to practice in hospital, institution, or group practice, Atlanta area. Bella Vitkin, M.D., 3601 Piedmont Rd., NE, Apt. 708, Atlanta, GA 30305; PH 404/237-3993.

Board-certified internist interested in opportunity to join or buy active medical practice in Atlanta vicinity. Available January 1982. Interested in non-invasive cardiology work. Box 10-B, c/o Journal.

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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

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Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindications: Tablets in children under 6 months of age, known hypersensitivity; acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.
Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures
INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist, use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*
Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest, concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea, have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least ⅓, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs. Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.
Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.
Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam/Roche), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
INJECTABLE: Although promptly controlled, seizures may return, re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.
Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug.
Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.
INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.
In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.
Dosage: Individualized for maximum beneficial effect.
ORAL—*Adults:* Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg *b.i.d.* to *q.i.d.*; acute alcohol withdrawal, 10 mg *t.i.d.* or *q.i.d.* in first 24 hours, then 5 mg *t.i.d.* or *q.i.d.* as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg *t.i.d.* or *q.i.d.*; adjunctively in convulsive disorders, 2 to 10 mg *b.i.d.* to *q.i.d. Geriatric or debilitated patients:* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg *t.i.d.* or *q.i.d.* initially, increasing as needed and tolerated (not for use under 6 months).
INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)
For dosages in infants and children see below; have resuscitative facilities available.
I.M. use: by deep injection into the muscle.
I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*
Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses), in children, *administer I.V. slowly;* for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary, in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available. Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.
In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M., in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.
Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.
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830 Deaths

INCIDENTAL INTELLIGENCE

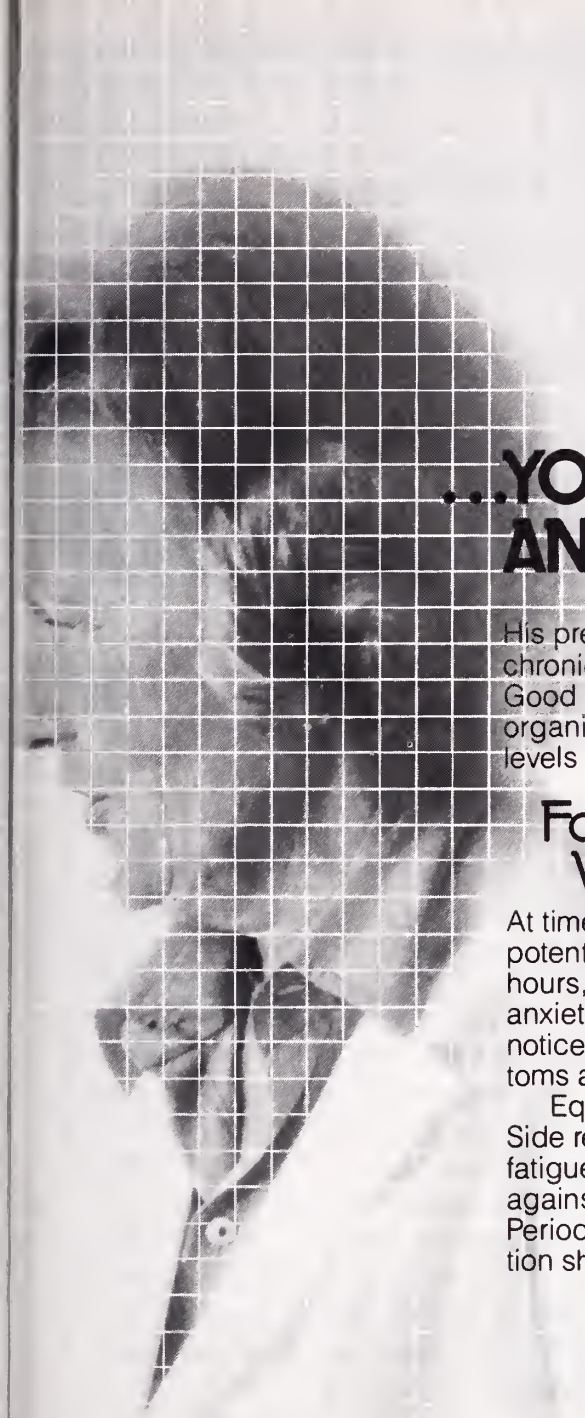
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THE COVER

The evidence against smoking during pregnancy continues to mount. Mr. Phillips, a 4th-year Emory medical student, describes the smoking-associated deleterious effects on the fetus and the risks at delivery (pp. 787-790). Dr. McDaniel urges physicians to inform their pregnant patients of these effects and risks in his editorial on p. 814. Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

THE PATIENT THINKS HE HAS HEART TROUBLE...





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM® (IV)

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED THE PATIENT NEEDS IT

ROCHE®

Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500;* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701
†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110

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MEDICAL MEETING CALENDAR

NOVEMBER

13—*Atlanta:* **A Day of Pediatrics.** Category 1 credit. Contact Diana Stephenson, Med. Staff Secy., Scottish Rite Hosp., 1001 Johnson Ferry Rd., NE, Atlanta 30363. PH:404/257-0232.

13—*Callaway Gardens:* **A Day on Rheumatic Disease.** Category 1 credit. Contact Jonathan P. Vansant, M.D., The Medical Ctr., Columbus 31904. PH:404/324-4711 Ext. 6573.

19—*Atlanta:* **9th Biennial MAG Conference on Medical Education: Who Will Care for the Patient?** Contact Stephen Davis, Dir. of Ed., MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535.

DECEMBER

2-6—*Atlanta:* **Sixth Southeastern Conference on Alcohol and Drug Abuse.** Category 1 credit. Contact Charter Med. Corp., Addictive Disease Div., 5780 Peachtree-Dunwoody Rd., Ste 170, Atlanta 30342. PH:404/257-9333.

4-11—*Honolulu:* **Behavioral Medicine and Primary Care in the 80s.** Sponsored by Univ. of SC, Sch. of Med. AMA Category 1 & AAFP prescribed credit. Contact Ms. Jeri McClain, Office for Academic Affairs, Univ. of SC, Sch. of Med., Columbia, SC 29208. PH:803/777-7470.

5—*Atlanta:* **Annual Diabetes Seminar.** Category 1 credit. Contact Vicki Schneider, Ga. Affil. Am. Diabetes Assn., Ste 810, 1447 Peachtree St., NE, Atlanta 30309. PH:404/881-1963.

5—*Atlanta:* **New Thrusts in Hypertension.** Category 1 credit. Contact Stephen L. Daniel, Morehouse Sch. of Med., 830 Westview Dr., SW, Atlanta 30314. PH:404/681-2800 Ext. 319.

8-10—*Miami Beach:* **American Cancer Society National Conference: Gastrointestinal Cancer 1981.** AMA Category 1 & AAFP prescribed credit. Contact Nicholas G. Bottiglieri, M.D., Amer. Cancer Society, 777 Third Ave., New York 10017. PH:212/371-2900.

10-11—*Atlanta:* **Retina Post-Graduate Course.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

10-11—*Durham, NC:* **Current Topics in Geriatric Medicine.** Category 1 credit. Contact Coord., Cont. Ed., Box 2914, Duke Med. Ctr., Durham, NC 27710. PH:912/684-5623.

10-12—*Atlanta:* **Angioplasty for the Radiologist.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

11—*Atlanta:* **Symposium on Multiple Sclerosis.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

11—*Atlanta:* **Seventh Annual Infectious Disease Seminar: Concepts 1981.** AMA Category 1 & AAFP prescribed credit. Contact Mrs. Audrea Lott, Dept. of Med. Ed., Ga. Bapt. Med. Ctr., 300 Blvd., NE, Atlanta 30312. PH:404/653-4600.

18-19—*Lexington, KY:* **The Primary Care Physician and Peripheral Vascular Disease.** Category 1 credit. Contact Frank R. Lemon, M.D., Cont. Ed., Univ. of Ky. College of Med., Lexington, KY 40536-0084. PH:606/233-5161.

JANUARY

15-16—*Atlanta:* **Starting Your Practice Seminar for Residents.** Cosponsored by AMA & MAG. Contact Stephen Davis, Dir. of Ed., MAG, 938 Peachtree St., NE, Atlanta 30309. PH:404/876-7535.

16-21—*Virgin Islands:* **Gynecologic Surgery.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

18-22—*Innisbrook, FL:* **Radiology for the Non-Radiologist.** Category 1 credit. Contact Edward A. Eikman, M.D., Univ. of S. Fl. College of Med., 12901 N. 30th St., Tampa, FL 33612. PH:813/974-2032.

22-23—*Atlanta:* **Pediatric Ultrasound.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

27-31—*Atlanta:* **Pediatric Cooperative Course.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404-329-5696.

FEBRUARY

1-5—*Snowmass, CO:* **Sixth Annual Conference on Pain, the General Practitioner, and the Science of Algology.** Category 1 credit. Contact Office of Cont. Ed., Ctr. for Rehab. Med., Emory Univ. Sch. of Med., 1441 Clifton Rd., NE, Atlanta 30322. PH:404/329-5507.

4-6—*Sanibel Island, FL:* **Hypertension 1982: Practical Management Consideration for the Physician in Clinical Practice.** Category 1 credit. Contact Dept. of Ed., Amer. College of Chest Phys., 911 Busse Hwy., Park Ridge, IL 60068.

11-12—*Augusta:* **Clinical Pathology.** Category 1 credit. Contact Div. of Cont. Ed., MCG Sch. of Med., Augusta 30912. PH:404/828-3967.

12-13—*Atlanta:* **Myths and Realities of Learning Disabilities.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

12-14—*Atlanta:* **Georgia Psychiatric Association — "Changing Women."** Category 1 credit. Contact Sarn B. Brown, M.D., 3280 Howell Mill Rd., NW, Atlanta 30307. PH:404/351-2330.

13-20—*Keystone, CO:* **Seventh Annual Snowjob in Gynecology and Obstetrics.** Category 1 credit. Contact Dir., Office of CME, Emory Univ. Sch. of Med., 1440 Clifton Rd., NE, Atlanta 30322. PH:404/329-5696.

17-22—*New Orleans:* **Second Annual Multidisciplinary Microsurgery at the Mardi Gras Symposium.** Cosponsored by LSU Med. Ctr. & Southern Bapt. Hosp. Contact Chev Hahn, Southern Bapt. Hosp., 2700 Napolean Ave., New Orleans, LA 70115. PH:504/897-5911.

22-27—*Augusta:* **Seventeenth Annual Family Practice Symposium.** Category 1 credit. Contact Div. of Cont. Ed., MCG, Augusta 30912. PH:404/828-3967.

27-28—*Augusta:* **Anesthesiology and Acute Medicine — Annual Meeting of the Georgia Society & South Carolina Society of Anesthesiologists.** Category 1 credit. Contact C. F. Johnson, Jr., M.D., Dept. of Anesth., MCG, Augusta 30912. PH:404/828-3871.

Incidental Intelligence . . .

Report on Georgia's Neonatal Genetic Screening Program

History: In 1978, the Georgia General Assembly expanded the law requiring testing of all infants for phenylketonuria (PKU) to include five additional disorders. Later, the rules and regulations governing this law were rewritten to include the 1972 law requiring neonatal sickle cell hemoglobin screening. An introductory article on Georgia's Newborn Screening Program appeared in the September, 1980, *Journal*. This is an update of the program activities.

Results of Metabolic Screening: Between September 1978 and May 1981, there were approximately 248,000 live births in Georgia. The diagnosed cases of genetic disorders included: PKU — 7, maple syrup urine disease — 2, homocystinuria — 2, and tyrosinemia — 1. Screening for hypothyroidism and galactosemia began at a later date, March, 1979. By May, 1981, from the approximately 205,000 live births, 24 infants were diagnosed as having primary hypothyroidism, 3 had galactosemia, and 3 had a variant of galactosemia.

Results of Hemoglobin Screening: By June, 1981, a total of 30,785 infants had been screened for sickle cell hemoglobin. Other structural hemoglobin variants are also detected by the electrophoretic screening test. Confirmatory testing is done on the cord blood samples by the Sickle Cell Center at the Medical College of Georgia. Screening results are as follows: sickle cell trait — 692, C trait — 252, Barts hemoglobin — 436, sickle cell anemia — 9, homozygous C disease — 6, and sickle cell hemoglobin C disease — 3. Followup of these infants is done by the Sickle Cell Center and the Sickle Cell Foundation of Georgia, Inc., a private non-profit organization in Atlanta.

Difficulties with Testing: Although the state laboratory receives about 10,000 test specimens each month for metabolic screening, not all specimens are suitable for testing for all metabolic disorders. This is because the infant should be 48 hours old and have had 24 hours of protein feeding before the specimen is collected. When these conditions are not met, only the tests for galactosemia and hypothyroidism can be done satisfactorily. A specimen should be collected even when the infant is discharged early (before 48 hrs.). The parents, however, must be given written notice of the legal requirements and also be instructed to have the infant retested before the end of the first week of life.

In addition, 3.1% of all specimens received are unsatisfactory to test. The attending physician is notified and is sent materials for retesting. Approximately one third of these retests are returned. This means that about 2.0% of the newborns do not have the complete metabolic screening program.

Audio-Visual Aids: To help overcome the problems encountered in collecting satisfactory specimens, the Laboratory Section of the Georgia Department of Human Resources has prepared audio-visuals which can be borrowed. The material consists of cassette tapes and 35 mm photographic slides. Those wishing to borrow either, "Screening for Hemoglobin Variants" or "The Collection of Blood for Metabolic Screening," please contact: Laboratory Section, 47 Trinity Ave., S.W., Atlanta, GA 30334; PH: (404) 656-4830.

Plans Progressing on MAG Mutual

MAG Mutual Insurance Company, formed at the direction of the House of Delegates of the Medical Association of Georgia, is continuing in its efforts to begin to write professional liability insurance in early 1982. While awaiting clearance by state officials to raise the needed capital, the company is developing underwriting and claims procedures, exploring the placement of reinsurance, and setting up the management of the company.

Once cleared by the appropriate state agencies, the company may begin raising the needed $3,000,000 in capital. An investment of $1500 per physician will be required to purchase insurance with the company. These funds, raised only by prospectus, will provide MAG Mutual with the capital base needed to write professional liability insurance in Georgia. All MAG members will receive materials on the company as part of the marketing campaign.

"Drugs Are A Drag" — A Puppetting Success

An idea for a puppet show was conceived in 1971 by the Auxiliary to the Medical Association of Atlanta to provide effective drug abuse information to Georgia school children. By 1980, this project had reached an estimated 50,000 students. The puppet show, "Drugs Are A Drag," required almost 2 years to put into operation. Consultants were hired for script-writing, puppet-making, and staging and training puppeteers. The show was designed "to create an awareness of the dangers of drugs in young people, and to provide information in an acceptable and entertaining form."

By January, 1973, work was begun on soliciting donations of needed materials: lumber, fabric, hardware, and other items. Puppeteer classes, extending over many weeks, were held to teach the volunteers to design and make puppets and to learn to coordinate voice and hand movements. A premiere performance was held for members of the Atlanta medical auxiliary on Oct. 5, 1973. The first school performance was on October 25 of that year.

"Drugs Are A Drag" revolves around a meeting of the "Truly Me Club" in which members present skits about abusing drugs: what it costs each person physically, mentally, and emotionally, and the final realization of each individual's self-image and/or respect for the human body. The toe-tapping tune, "I Am The One And Only Me," emphasizes a healthy self-image.

The 25-minute show takes place inside a real clubhouse. Eleven elaborately-dressed puppets and five backstage operators are required for each performance. Dialogue and music have been taped to coordinate with the live action on stage.

Following the puppet show, teachers are encouraged to participate with the children in a discussion about drugs, using educational literature obtained from the Drug Information Center, Georgia Mental Health Institute, and the U. S. Department of Justice, Drug Enforcement Administration.

The free show has been received with enthusiasm, as attested by the many letters, cards, and pictures from principals, teachers, and students. The success of the project also has been gauged by requests for performances from other organizations besides schools, including the Atlanta Women's Chamber of Commerce, Scouts, Ridgeview Hospital, day care centers, civic clubs, and television programs.

A video tape has been made of the entire program, and this has encouraged other county auxiliaries throughout Georgia to adopt the show as a part of their health education projects. As a result, a similar puppet show, "Live It Up Naturally," was completed recently by the Richmond County Auxiliary with the help of the county health department. The first show was geared to elementary students and the latter to teens in the 7th, 8th, and 9th grades.

In 1980, "Drugs Are A Drag" was placed in the American Medical Association Auxiliary's project bank in Chicago. To date, requests for information kits have come from auxiliaries in Alabama, Arizona, California, Florida, and Oklahoma.

(Reported by Evelyn Gay, AMAG)

GAFP Educational Foundation Announces Its Winter 1981-82 Schedule of Home Study CME Courses

Primary Care Update (125 CME Hours) — Revised in 1980-81. An 18-session program which addresses a broad spectrum of topics, each of which was selected for its applicability to the needs of the primary care physician.

Cardiology Update and Review (40 CME Hours) — A five-session program providing an in-depth review of cardiology, plus the latest information on drugs and other therapeutic methodologies. Written by Mark E. Silverman, M.D., Professor of Medicine (Cardiology) at Emory University, Atlanta.

Infectious Diseases and the Primary Care Physician (50 CME Hours) — A seven-session course which gives special attention to differential diagnosis, drug dosage, and long-term therapy. Major subject areas include host vs. the microorganism, infections of the upper and lower respiratory systems, urinary tract, GI tract, and central nervous system.

Emergency Care Pediatric and Adult (50 CME Hours) — Myriad emergency situations, ranging from emergency room triad and assessment to snake and insect bites, are discussed. Six sessions and final examination.

All GAFP courses are acceptable for AAFP (Prescribed/Elective) hours and AMA Category 1 credit hours. Each GAFP course will be offered for enrollment on all of the following dates: Nov. 9 & 23, 1981; Dec. 7, 1981; Jan. 4 & 18, 1982; Feb. 1 & 15, 1982. For further information, contact: Patricia Eubanks, 11 Corporate Square, Ste. 235, Atlanta, GA 30329. PH: (404) 321-7445.

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Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
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Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
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Ru-Tuss Tablets act continuously for 10 to 12 hours.

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Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

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- Rapid relief of upper respiratory congestion and cough
- Good tasting

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For the Family

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RU-TUSS® TABLETS

DESCRIPTION
Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.
INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.
CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.
WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.
PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings.)
OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.
ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.
DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.
HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription

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RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.
INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.
CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.
WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.
PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.
ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.
DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.
Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.
HOW SUPPLIED

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JOURNAL
of the medical association of georgia

Effects of Maternal Smoking on the Fetus

THOMAS C. PHILLIPS, III, *Atlanta**

THE MEDICAL PROFESSION has no doubt that cigarette smoking is a danger to health. Yet in our free society, few question the right of an individual to take his/her own chances with the welfare of his/her own body. When a pregnant woman smokes, however, she not only poisons her own body but risks injury to her unborn child — a social right which she may not have. The extent of that risk has not yet been determined completely. Today, however, the list of damages to the fetus from smoking during pregnancy is becoming longer, more obvious, and in some cases, closer to being "proven."

The effects of cigarette smoking on the mother set the stage for damages to the fetus through two obvious mechanisms. First, by compromising the health of the mother herself, the resources of growth for the fetus are likewise compromised. Second, direct damage can be done to the fetus by blood-borne toxins and poorer oxygenation.

Of the former, all the known deleterious effects of cigarettes in the adult do play a part (Table 1). Adult lungs are damaged as seen by hyperplasia and pleomorphism in bronchial epithelium and glands,[1] an increased number of macrophages and fluorescent inclusions in macrophages, and decreased numbers and activity of cilia. Oxides of nitrogen have been shown to irreversibly damage cell membranes in the lung. The nitrosamines present are both potent carcinogens and sensitizing agents. Acrolein can also be shown to inhibit DNA polymerase in regenerating rat liver, so it might affect epithelial repair. (Many other carcinogens are known to be in cigarette smoke,[1] and researchers generally agree that carcinogens are most dangerous to cells multiplying rapidly, as in a fetus.)

The smoker's circulatory system is also involved. Platelets and blood clotting are affected by nicotine-induced catecholamine release, which enhances conversion of platelet ATP to ADP and thus promotes a clotting diathesis. Catecholamine release also increases blood pressure and heart rate.[1] Atheromatous plaque formation is facilitated by smoking.

One researcher sums up the independent effect of smoking during pregnancy as increasing the perinatal death rate by 20% for less than one pack per day and 35% for more than one pack per day.

Hydrogen cyanide and perhaps other poisons in cigarette smoke combine with respiratory enzymes throughout the body, affecting the function of leukocytes and slowing the regeneration of NADH. Oral leukocytes are especially prone to decrease in function immediately after contact with cigarette smoke.[1] Clearly, a mother with poorer protection against infection, poorer ventilation, decreased respiratory enzyme function, and poorer circulation is at a higher risk for compromising the health of her fetus than a mother in good health.

This picture of generally poorer health in cigarette-smoking mothers is one primary reason why it is difficult to demonstrate direct effects of smoking on the fetus through epidemiologic studies.

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TABLE 1 — Deleterious Health Effects of Smoking on Adults

- A. Lungs, deleterious effects seen on:
 - 1. Bronchial epithelium
 - 2. Alveolar macrophages
 - 3. Cilia
 - 4. Cell membranes
- B. DNA polymerase possibly inhibited
- C. Presence of potent carcinogens
- D. Circulatory system
 - 1. Nicotine-induced catecholamine release with widespread effects
 - 2. Increased atheromatous plaque formation
 - 3. Hydrogen Cyanide impairs respiratory enzymes

Challengers point to these health variables and toward the tendency of a cigarette smokers to be overweight, multiparous, of lower socioeconomic status, and less health-conscious. Even after these variables are adjusted for or matched, however, some empirical changes can be positively identified in neonates born to mothers who smoked during pregnancy (Table 2).

In one study, abruptio placentae was 24% more common in light smokers and 68% more common in heavy smokers.

Most impressive among these studies are those demonstrating increased perinatal mortality. One researcher sums up the independent effect of smoking during pregnancy as increasing the perinatal death rate by 20% for less than one pack per day and 35% for more than one pack per day.[2] Recently, Garn et al.[3] demonstrated that the proportion of low and depressed Apgar scores in 43,492 live births was related to the extent of maternal cigarette smoking during pregnancy, even after the exclusion of premature births. They found that smoking more than two packs per day was associated with a near-quadrupling of low Apgar scores.

Maternal smoking has also been shown to cause a consistent decrease in birth weight. The average decrease is 170 to 200 grams, or about 5% of birth weight. This is seen regardless of age, race, parity, or socioeconomic status.[4] The fetal to placental weight ratio is reduced in a smoker's pregnancy, suggesting genuine fetal growth retardation.[4] Mothers with insufficient weight gain during pregnancy also have reduced-weight neonates. These latter babies, however, are *not* reduced in height, while babies born to maternal smokers are also reduced in height. Thus, prenatal weight gain differential in smokers versus nonsmokers is not the mechanism of lower birth weights, but solely growth retardation.[2] These effects have been validated in both mice and rabbits, who also have smaller offspring when allowed to breathe cigarette smoke or carbon monoxide (CO) in concentrations approximating that which smokers inhale.[5] Unfortunately, some mothers rationalize their smoking during pregnancy by thinking that a lower weight baby will make delivery easier.

TABLE 2 — Damage to Fetuses Whose Mothers Smoke During Pregnancy

- A. Increased perinatal mortality
- B. Lower Apgar scores
- C. Height and weight at birth diminished
- D. Increased incidence of complications at delivery
- E. Increased incidence of prematurity
- F. 100% more congenital heart disease
- G. Possible long-term CNS effects
- H. "Breathing movements" in utero reduced (Possibly slowing lung development)
- I. Damage to vascular system
- J. Higher concentration of fetal COHb, poorer O_2 delivery to fetus, lower fetal HbO_2

The incidence of delivery complications definitely increases when a mother smokes throughout pregnancy. In one large study, abruptio placentae, which has a 10% fatality rate for the newborn, was 24% more common in light smokers and 68% more common in heavy smokers. (Light smoking was defined as less than one pack per day.) Placenta previa was 25% more common in light smokers and 92% more common in heavy smokers. Mothers who smoke during pregnancy also have a significantly greater incidence of premature births and premature rupture of membranes.[2]

The fetal CNS is also affected by maternal smoking. Two well-matched studies show a significantly lower IQ at ages 7 and 11 in children of women who smoked during pregnancy.[2, 4, 6] Obviously, ruling out environmental effects in these cases is difficult. (These children also have shorter stature than the controls.) There is an increased incidence of minimal brain dysfunction (MBD) in the children of mothers who smoked during pregnancy. Likewise, in a large group of children with MBD, there was a higher percentage of cigarette smoking mothers.[2, 7]

The cumulative data indicate that significant increases in maternal and fetal COHb concentrations can significantly reduce oxygen delivery to the fetus.

A fetus's lungs are also affected. Fetal "breathing movements" of the chest are known to occur during gestation. Many researchers believe that these movements are a necessary part of respiratory muscle development. The duration and extent of these movements has been shown to be a good indicator of fetal health. In one study, women in the third trimester of pregnancy who smoked two cigarettes after having abstained for 24 hours rapidly and significantly reduced the fetal breathing movements from

65% of the time (normal) to 50% at 5 minutes and 45% at 30 minutes.[8] The effect lasted 90 minutes. This is a very practical consideration, since a few cigarettes would affect the fetus all day. One researcher reported a delayed onset of crying immediately after birth in the infants of cigarette smoking mothers.[2] Thus, the lungs seem to have definitely been adversely affected. Indeed, this change may indicate changes in all muscular developments during gestation.

The adverse effect observed in respiratory muscle development may indicate changes in all muscular developments during gestation.

Many of the clinical problems that smoking gravid women experience appear similar to problems of patients with severe anemia or cyanotic heart disease.[4] This serves to indicate that impaired fetal development may stem from impaired oxygen delivery, perhaps due to CO.

Many technical studies have been done on the effects of CO, nicotine, and cigarette smoke on animal and human fetuses. Cigarette smoke or CO alone causes a shift to the left in the curve of oxyhemoglobin dissociation at varying pO_2. Remaining oxyhemoglobin will have a higher affinity for its oxygen in the presence of CO. Thus, a lower pO_2 is required for release of the same amount of oxygen as if CO were absent. This problem is compounded in the fetus because *normal* pO_2 is 20-30 mm Hg, so a much lower oxygen tension is difficult to achieve. In addition, maternal oxygen transport capacity is hurt 20-30% by the substantially elevated amounts of carboxyhemoglobin (COHb). Thus, as little as 2% COHb was seen to lower fetal oxygen tension. COHb normally reaches 2 to 16% in cigarette smokers' circulation.[2] The cumulative data indicate, therefore, that significant increases in maternal and fetal COHb concentrations can significantly reduce oxygen delivery to the fetus.

It is the essential responsibility of physicians to inform their pregnant patients of the proven risks of smoking.

One study compared the vascular endothelium of umbilical cords from neonates born to smokers and nonsmokers.[9] Pronounced changes in the intima were found in the umbilical samples from the smokers' infants. The most important findings were degenerative changes in the endothelium, such as swelling, bleeding, contraction, and subsequent opening of the endothelial junctions, with formation of subendothelial edema. The basement membranes were considerably thickened. The smooth muscle cells in the edematous subendothelial space often showed vacuolization. Since similar changes can be induced in the arteries of animals, the authors concluded that cigarette smoking during pregnancy is harmful to the vascular endothelium and may offer a partial explanation for decreased birth weights and increased perinatal mortality.

Rats born to mothers who inhaled CO such that their blood concentration of CO paralleled that of human smokers showed several changes from controls. They had decreased activity at all ages. They demonstrated increased difficulty in learning a maze. They had decreased brain protein mass, and they synthesized neurotransmitter poorer upon challenge.[10, 11] With higher doses of CO, there were fewer rats in each litter and 100% more neonatal death.

A variety of teratogeneses have been attributed to cigarette smoke and/or its constituents. In one study of humans, there was twice the normal incidence of congenital heart disease in neonates born to mothers who smoked throughout pregnancy. These fell mainly into two types: patient ductus arteriosus and tetrology of Fallot.[2] In monkeys and mice, normal concentrations of cigarette smoke increased fetal heart rate and later heart size at birth.[11] Rabbits exposed to CO in utero, again at concentrations similar to human smokers, were born with skeletal abnormalities. In higher doses, rabbits were born sterile.[2, 11]

Definite deleterious effects of smoking on the outcome of pregnancy include increased perinatal morbidity and mortality, increased congenital heart defects, vascular damage before birth, and possible IQ deficits.

The definite deleterious effects of smoking on the outcome of pregnancy, such as increased perinatal morbidity and mortality, increased congenital heart defects, vascular damage before birth, and possible IQ deficits, do not have to stand alone to deter a future mother from smoking. Other documented data indicate that infants in a home where either parent smokes have significantly more admissions to the hospital for pneumonia or bronchitis before the age of 1 than do infants of nonsmokers. The incidence increases further where both parents smoke.[12, 13] According to the American Academy of Pediatrics, there is also "a significantly greater frequency of admissions to the hospital for *injuries* among children of smokers."[14] Perhaps the greatest impetus for cessation lies in the knowledge that children of smokers more often smoke too, and do so at an earlier age, than do children of nonsmokers.[15]

What Woman Know About Smoking and Pregnancy

There is much information circulating in the scientific community regarding the effects of smoking on health in general and, specifically, on the outcome of pregnancy. In a survey conducted in 1975 by the then U. S. Department of Health, Education, and Welfare and the National Institutes of Health, an attempt was made to find out how successfully this information had been disseminated to the general population and particularly to women.

To what extent was the average woman informed about the consequences of her smoking on her own health and that of her unborn child? The questions were designed to find out what women knew at the time of their last pregnancy (which in some cases was many years ago) and what they knew at the time of the survey.

At the time of their last pregnancy, 24% said they believed smoking was hazardous to their health, and 31% said they believed it harmed the fetus. At the time of the survey in 1975, however, 53% reported that they knew smoking was harmful to their health, and 60% believed it harmed the fetus.

Clearly, the level of knowledge among women about the effects of smoking on pregnancy is much lower than that in the scientific community. It is the essential responsibility of physicians to inform their pregnant patients of the proven risks of smoking.

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In one case described, there is evidence that the concentration of microspheres was markedly increased in the tumor, and in another, that there was effect on the tumor and not on the normal liver tissue.

Vasoconstrictors to Improve Localization of Radioactive Microspheres in the Treatment of Liver Cancer

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SINCE 1960, organ tumors with local blood supply have been effectively irradiated with up to 5,000 rads by beta emitters.[1] Radioactive particles (15 microns in diameter, too large to pass through capillaries) in the form of resin spheres tagged with yttrium-90 (Y-90) have been introduced as a suspension in the arterial supply of the organ to be irradiated. This has most often been done using the hepatic artery to treat liver tumors.[2-5]

In order to enhance the deposition of these particles into the neoplastic tissue and spare the healthy liver tissue, we investigated the potential role of various vaso-active substances. This is a report on the use of vasoconstrictors to improve localization of radioactive microspheres in 21 patients with diffuse liver cancer.

Methodology

Vasoconstrictors have been used in cannulated hepatic arteries, placed both percutaneously by Seldinger selective catheterization and operatively by catheters fixed into position. In both methods, catheters are placed in duplicate (via celiac and superior mesenteric arteries) when arterial supply comes off two separate vessels or as a single catheter placed so there is no delivery to the stomach or duodenum. When catheters are placed percutaneously, they must go past the gastroduodenal artery. When they are placed operatively via the gastroduodenal, the right gastric and the accessory duodenal and pancreatic branches need to be ligated. The vasoconstrictor is introduced either by bolus injection or by pump infusion.

For bolus injection, three drugs have been used: epinephrine, norepinephrine, and methoxamine. The following doses have been found to be effective: (1) 2 μgm epinephrine per cc (1 mg in 500 cc saline), giving 4 cc or 8 μgm in 4 seconds; (2) 40 μgm/cc norepinephrine (4 mg in 100 cc saline), using 5 cc (200 μgm) delivered in 5 seconds; (3) 200 μgm/cc methoxamine (20 mg in 100 cc saline), using 5 cc (to give 1,000 μgm = 1 mg) delivered in 5 seconds.

The duration of the vasoconstrictor effect of the bolus injection of norepinephrine (using dye injection thereafter every 30 seconds) was measured at 14.5 minutes. The duration of methoxamine was similarly measured and found to be 4.5 minutes. That of epinephrine was not measured.

Dye is injected using a standard pressure injector, programmed to deliver 3 cc/second of renografin-60 x 5 seconds, with x-ray exposure at 2 exposures per second times 4 exposures and 1 per second times 10 seconds. This shows the early and late blush phase of the tumor circulation, as well as the squeezing of the dye out of the normal liver. If this picture is satisfactory, then the microspheres are more slowly

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injected after the vasoconstrictor is again pushed in, taking about 10 seconds to inject the microspheres very slowly. The microspheres are apt to be contained in a volume of 2-10 cc of Dextran, according to the time from calibration that may be selected for their use. When dye is injected under pressure, some goes retrogradely toward the spleen, which effect is exaggerated after the vasoconstrictor. A very slow injection of microspheres should allow them to pass toward the tumor. This has been repeatedly confirmed by Brehmstrahlung nuclear scans of the liver after treatment with and without vasoconstrictors.

The alternate method of infusing the vasoconstrictor prior to or with the microspheres has also been used, but it seems to be more hazardous and less accurate. In some cases where the vasoconstrictor is infused prior to the injection of the microspheres, reactions included tachycardia, increased blood pressure, and sometimes a squeezing sensation in the chest. These reactions may be quite severe when using norepinephrine and epinephrine and have been treated with propranolol 20 mg by mouth 1-2 hours pre-treatment, or 1 mg intravenously during the procedure. Methoxamine causes less reaction. For infusion treatment, epinephrine is administered 12 μgm/minute until there is a significant rise in peripheral blood pressure. The infusion is then stopped, and the dye injected in the same way as described after the bolus injection. If the pictures are satisfactory, the infusion is repeated, and the Y-90 microspheres are very slowly injected by hand syringe. In the case of norepinephrine, the rate of infusion is 4 μgm/minute, following the same plan and precautions. Again, propranolol has been helpful. Vasoxyl was infused at 10 μgm/minute in one case. It caused no side effects.

Patient Summary

Five patients were treated with a bolus of epinephrine injected by hand, using 8-12 μgm of adrenaline (2 μgm/cc of saline). Five patients were treated with Y-90 with or after an infusion of epinephrine. Ten patients had Y-90 injected slowly by the hand syringe after an infusion of norepinephrine, until the systolic blood pressure rose to 200. One patient was treated after an infusion of methoxamine. Tissue was obtained operatively and at postmortem from two patients to demonstrate the effective vasoconstrictor shunt of microspheres.

One of these patients had carcinoid syndrome (metastatic to the liver) and congestive heart failure with tricuspid disease. Methoxamine was used as a vasoconstrictor. It gave no peripheral or cardiac reaction, but did show a vasoconstrictor locally with dye. The patient died 17 days after treatment of cardiac failure and of peritonitis complications. The entire liver was taken at autopsy, there was still



Figure 1 — Patient #2 with operatively placed catheter in hepatic artery of liver (via gastro-duodenal). Arteriogram shows multiple tumors in both lobes of liver and demonstrates a good blush in the tumors.



Figure 2 — Patient #2. X-ray of arterial injection of dye is taken after an infusion of norepinephrine; the timing is comparable to that shown in Figure 1 without the vasoconstrictor. The vessels are scarcely visible, but the tumors show an augmented blush.

enough radioactivity in the liver to measure distribution. The radiation in the largest tumor was eight times that found in the normal liver and that in the smallest tumor was nine times that found in the normal liver.

Patient #2 had good evidence that vasoconstrictors had effectively confined the treatment to the tumor without damaging the adjacent normal liver. This 35-year-old female geologist had multiple metastatic pheochromocytoma tumors in the liver, demonstrated by biopsy when her primary adrenal tumor was removed. She was treated with 50 millicures of Y-90 microspheres injected into the hepatic



Figure 3 — Arteriogram performed on one patient by percutaneous selective cannulation because of multiple small metastatic colon cancers in both sides of the liver. Very little tumor blush was seen, but there was no distortion or stretching of vessels by tumor.



Figure 4 — Arteriogram on same patient as in Figure 3, done after an infusion of norepinephrine. The vessel trunks and branches are smaller, and the many small tumors show an excellent blush.

artery after epinephrine infusion into the same artery. Two years later, repeat diagnostic arteriogram showed disappearance of the lesions treated, but development of three new, small vascular tumors in the periphery of the right lobe of the liver. These small lesions were easily excised, together with a small margin of adjacent liver. One of the old lesions was still present but had not shown up in the arteriogram, because it had apparently been scarred down by treatment. When the new, active lesions were resected, the old one was implanted with I-125 seeds, since it was larger and crossed both liver lobes. There was no microscopic evidence of radiation damage in the normal liver excised with the tumors. In this case, too, the vasoconstrictor had apparently been effective in helping concentrate the microspheres in the tumors and protect the normal liver.

Discussion and Review of the Literature

The liver is a preferred site for migration and growth of metastasis for neoplasms originating from other organs and systems. In the past, the presence of metastasis to the liver or widespread primary liver cancer has had an ominous prognosis, and the overall treatment has consequently been restricted to palliative measures. Recently, Adson[6] and Foster[7] noticed increased survival following complete resection of primary liver cancer or liver metastasis after having achieved control of the primary tumor. Often, the metastatic disease involves multiple areas of the liver, and surgical excision is therefore not possible. Limited amounts of external radiation therapy have been effective against liver metastasis,[8, 9] but effective treatment by this means is limited due to the deleterious effects on healthy liver tissue and surrounding organs.

On the other hand, local radiation therapy introduced intra-arterially as radioactive micro-emboli can selectively distribute adequate tumoricidal doses to liver tumors. This technique is based on extensive investigations which have shown that in the early, well-vascularized stages, most hepatic neoplasms obtain their principal blood supply from the hepatic artery. In human autopsy specimens, Breedis and Young[10] demonstrated conclusively that both primary and secondary tumors derive their blood supply from the hepatic arteries. The same circulatory pattern was seen in vivo from arteriographic studies by Bierman[11] and Gans.[12] Using an experimental implanted Walker tumor in rat Iviers, Ackerman[13] demonstrated that tumors greater than 30 mg obtained their predominant blood supply from the hepatic artery. Additional studies by the same author[14] showed a well-developed arterial circulation in lesions 3 to 7 millimeters in size. In larger tumors ranging from 7-33 millimeters, a continually

changing variety of vague vascular patterns were seen. Blanchard[15] used scandium-46 microspheres to show the predominant hepatic artery blood supply to metastatic V2 carcinoma in rabbits. In certain tumors with a good blood supply, there may be a greater concentration of agents in the tumor compared to the normal tissue. Using hepatic tumors of New Zealand rabbits treated with intra-arterial Y-90 microspheres, Blanchard showed that the hepatic tumor averaged four times the concentration of microspheres than that found in the surrounding normal liver. One of our patients was treated for liver cancer by intra-arterial Y-90 particles. The patient died of renal failure 17 days later, and autopsy revealed almost total destruction of the cancer. The residual tumor contained four times the amount of radiation as the normal liver.[16]

Although in some cases it appears that microspheres tend to lodge preferentially in the neoplastic tissue, in others, a good percentage is trapped in the normal parenchyma. An increased tumoricidal effect could undoubtedly be obtained in more tumors if the majority of the microspheres could be selectively deposited into the tumor. The enhancement of tumor deposition of microspheres can sometimes be obtained through manipulation of the blood flow, since a different vascular system between neoplastic and non-neoplastic tissue may be present in the liver.

Growth of the tumor seems to be perpetrated by a well-described angiogenic factor released as a diffusable material which induces vascular proliferation in the host and is essential for growth and expansion of the tumor.[17, 18] These irregularly formed vessels have been demonstrated by Krylova[19] and Mattson,[20] to be immature and to have a small and uneven distribution of both smooth muscle fibers and adrenergic nerves. Billing and Lindgren[21] demonstrated that some neoplastic vessels were thin walled, containing smaller amounts of muscle tissue, and postulated that they therefore may fail to contract in response to adrenergic stimulants. In human studies, Gammill[22] and others[23] noted that tumor vessels did not contain normal smooth muscle. In studies on induced animal sarcomas, Papadimitriou and Woods[24] and Underwood and Carr[25] also noted the absence of smooth muscle cells in the tumor vessels. Ward[26] and Neyazaki[27] saw the same type of vessels in their tumors. Sundqvist, Hafström, and Persson[28] injected norepinephrine in rats with liver tumors (hepatomas and implanted adenocarcinomas) and found norepinephrine-containing nerve fibers in normal liver tissue but none in the tumor. Bierman[11] and others[13, 21] suggested that the response of neoplastic vessels to conventional neurohumeral stimuli differed from that of normal vessels.

Hafström, Persson, and Sundqvist[29] used systemic vasopressin in rats with intrahepatic tumors, showing a decrease in blood flow to the liver, spleen, and small intestine. Here, vasopressin led to a decrease in tumor/liver blood flow rate, but glucagon and histamine in the same model produced no change in the tumor/liver ratio. Sundqvist, Hafström, and Persson[28] again showed in rat liver tumors (hepatomas and adenocarcinomas) that systemic infusion of epinephrine had no effect on the tumor/liver blood flow ratio, but norepinephrine led to a rise in tumor/liver ratio. In another study, Hafström[30] reported that rat liver tumor preparations using radioactive labelled microspheres increased in the tumor/liver ratio after norepinephrine but not after epinephrine. It would appear from the studies that tumors have a different vasculature from that of the surrounding normal tissue. This vasculature appears to be irregular and does not possess the regular neuroreceptors intrinsic to the musculature of the normal vessel wall. Therefore, the muscle fibers do not contract in response to stimuli from adrenergic receptors.

Conclusion

From the angiographic studies that we have obtained in the liver following the intra-arterial infusion of vasoactive stimulators, we were able to see a vasoconstricting effect on the normal vasculature and a better distribution of angiographic dye into the tumor substance of our patients.

Two cases are described in which there is direct evidence in one that the concentration of microspheres was markedly increased in the tumor and in the other, that there was effect on the tumor and not on the normal liver tissue.

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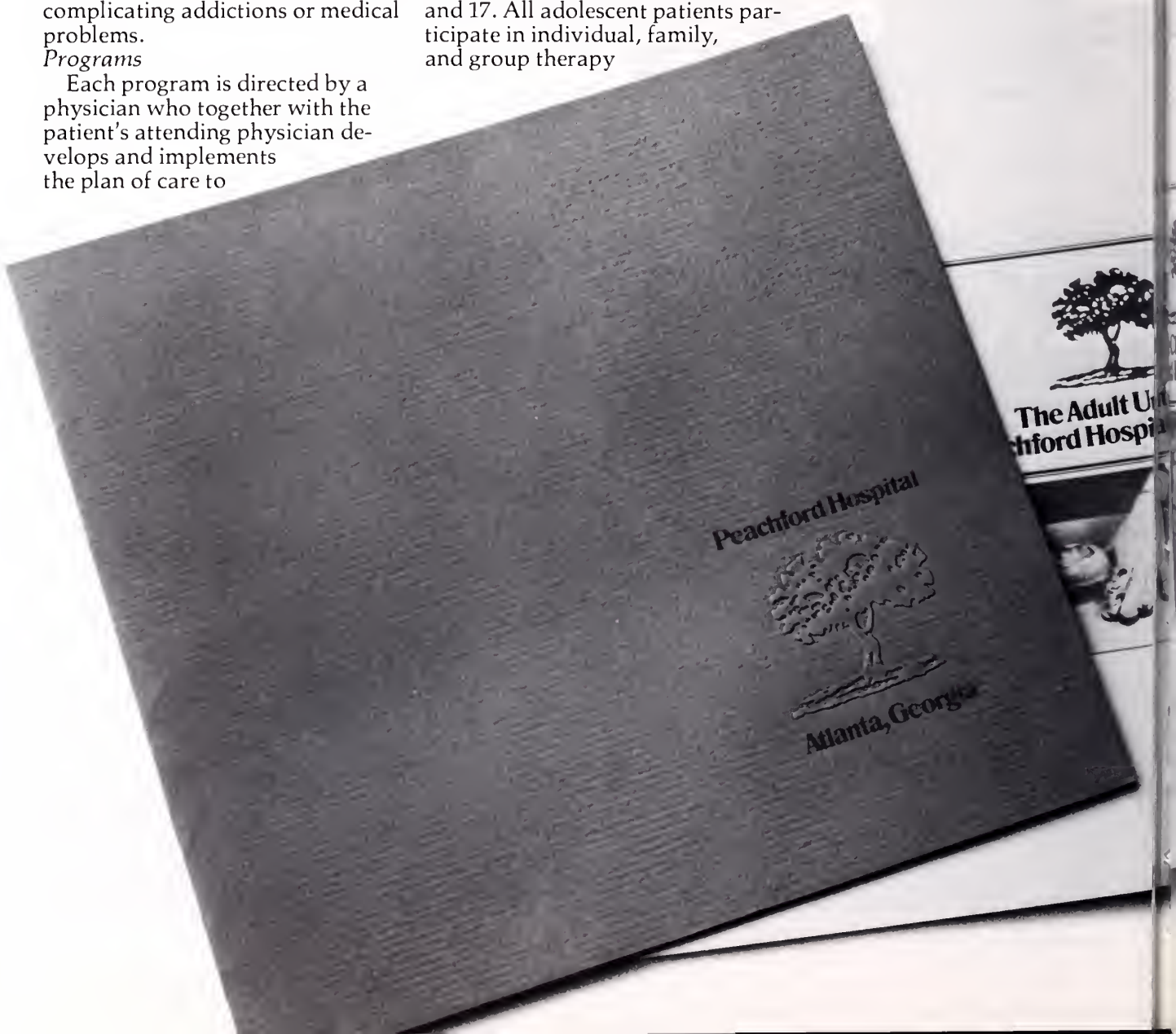
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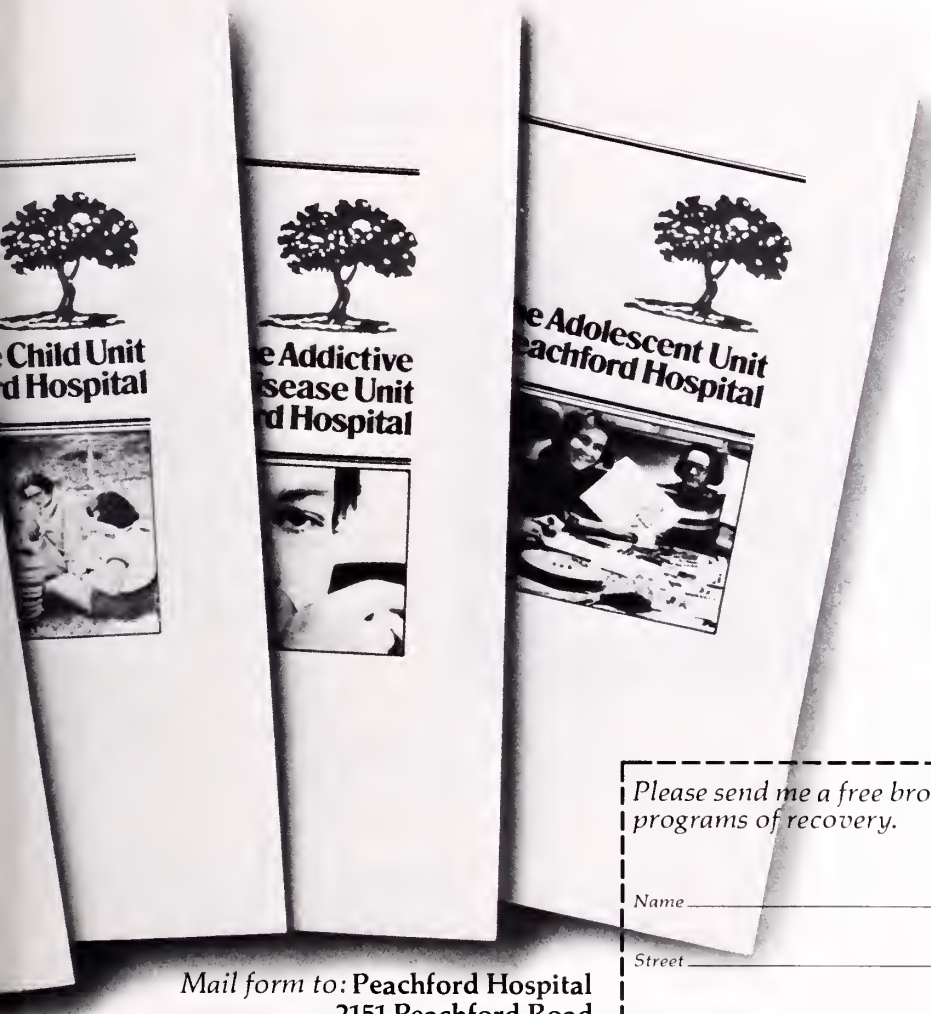
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The author opines on why the perceived supply of physicians in the last 20 years has fluctuated between a shortage and a plethora.

The Chimera of "Adequate" Physician Supply

JAMES W. HOLSINGER, JR., M.D., *Richmond, Virginia**

SINCE THE PUBLICATION of the Carnegie Commission's Flexner Report in 1910, questions concerning the supply of physicians have been raised almost continually. Questions such as: Are there enough physicians? How many are enough? Are they adequately trained? Are there too many, and if so, too many of which specialty? In the period since 1960, the assessment of the adequacy of the number of physicians practicing medicine in the United States has fluctuated between two extremes: that there are too few and that there are too many. This paper will assess the data and their implications for health care delivery in the United States.

National Distribution of Physicians

The question of the adequacy of the number of physicians has a variety of facets. It may be looked at on the basis of the number of physicians as a ratio of the population per 100,000. Although any standard set is arbitrarily established, the actual ratio may be examined over time to determine what changes have occurred. In addition, differences in the ratio may be compared between regions of the country, within each state, between rural and urban areas, etc. Such comparisons demonstrate considerable variation in the ratio of physicians to population depending on the geographic region. On this basis, the Northeast and West have proportionately more physicians than the South and North Central areas.[1] There is even greater variation between the states than between the regions. In 1970, there were 173 physicians per 100,000 urban population as compared with only 80 per 100,000 population in the rural areas.[1] Even within the urban centers there is variation, with most physicians concentrated in a few census tracts. As a consequence, some observers have addressed the question of physician adequacy from the point of view of a maldistribution rather than from a shortage or plethora per se.

The adequacy of physician numbers may also be looked at from an economic standpoint. As Lave et al. state:

> "The demand for medical care (and physician services) is derived from the demand for health. Medical care is a service that can be bought to improve or maintain health 'stock.' The demand for medical care is thus dependent upon an individual's underlying health status, perception of the efficacy of medical care, and cost of getting medical care, where cost is a vector consisting of time costs, money costs, and psychological costs."[1]

Supply and Demand of Medical Care

It is of interest to note that as individual or family earnings rise, with all other factors equal, the value of time to the individual rises. It has been widely assumed that money, under these circumstances, will be substituted for time. With the increased levels of coverage provided in past years by health insurance and the Mediplans, the monetary price to the consumer falls. This in conjunction with the rise in personal or family income results in an increase in the quantity of medical services demanded. Any fall in access costs will also result in an increase in demand. If the costs in time to the consumer for health care increase, however, the services demanded will decrease.[1] Consequently, the demand for

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health services may either increase or decrease based on a variety of factors which may or may not be related to the health needs of the population. Such changes may be reflected in either a perceived shortage or plethora in the number of physicians, as the case may be.

Just as demand for physician services may play a role in the perception of the adequacy of the number of physicians, so the supply of physicians may also play a role. A total of 85.1% of physicians trained for the job are currently working as physicians.[2] Thus, the dropout rate for physicians is quite low. In the period from 1960 to the present, a period in which there was a perceived shortage of physicians, an increase in government funding, via capitation grants to the medical schools and the funding of new medical schools by the Veterans Administration and some states, resulted in an increase in the number of first year medical school positions from 8,298 in 1960[3] to 16,054 in 1978.[4] Thus, the preceived need for additional physicians was met by American society by a vast outlay of funds to increase the number of medical students by nearly a factor of two. In the same period, graduates of foreign medical schools were entering the United States at an increasing rate, with 1,990 arriving in 1957 and 7,119 in 1973.[5] In 1973, there were about 366,379 practicing physicians;[5] that number has increased to nearly 415,000 today.

The Impact of Specialization on Physician Supply

In addition to the increase in the supply of physicians in the United States, specialization has tended to act as a counterforce to the expanding numbers of physicians. In 1975, the American College of Surgeons[6] reported that the United States had too many surgeons and implied that in conjunction with expanding medical school enrollment that the surplus of surgeons will grow worse in the next 5 to 10 years. The report contended that many surgeons are underused, in that the reported median workload was 170 operations per surgeon per year — well under the number that surgeons are capable of handling. There are approximately 16,000 surgical residency positions offered in training centers, with approximately 2,500 to 3,000 individuals completing these programs each year. Blackstone states: "A kind of market failure exists in the sense that a person entering surgery does not take into account the subsequent reduction in the skills of the currently practicing surgeons whose workloads are reduced. . . . However, to the extent that there might be a reduction in quality with excessive entry, society may well want to consider a policy to limit entry to a rate which permits quality to be maintained at some desirable level."[6] Although the report indicates that, technically, there are too many surgeons, it does not take into consideration that society may well want to have surgical capabilities more widely dispersed than would be the case should the number of surgeons be constrained. Just as the Flexner Report resulted in an increase in the quality of medical schools, a marked rise in the relative income of physicians, a widely acknowledged shortage of primary care physicians, and an influx of foreign trained doctors, this surgeons' report, if implemented, could result in restricting the number of new surgeons and causing a rise in surgical incomes.

The increase in medical specialization that has occurred since World War II has resulted in a marked decrease in the number of general practitioners in the United States. This "maldistribution" of physicians by specialization has been noted by many authors and has become a political issue rather than merely a social one. Even the Interim Report of the Graduate Medical Education National Advisory Committee (GMENAC) to the Secretary of Health, Education, and Welfare conceded that the proper mix of specialists and general practitioners is a highly controversial and unanswered question. The Health Professions Education Assistance Act of 1976 (PL 94-484) includes family practice, general internal medicine, and general pediatrics as the primary care specialties. In 1976, a total of 39% of all active physicians were in these specialties.[2] Not included in these statistics are those physicians practicing in subspecialties of internal medicine and pediatrics who continue to provide primary care for their patients as general internists and general pediatricians. Likewise, this does not include those surgeons, particularly general surgeons, who are professionally underemployed as surgeons according to the American College of Surgeons and who provide primary care to a portion of their patients. Thus, it is extremely difficult to determine if a problem of access to the health care system occurs due to a "maldistribution" of physicians by specialization. This area has been of great concern to social scientists who have suggested, for example, that the United States has too many surgeons at a time when there is a perceived shortage of primary care physicians.[6]

The GMENAC Report

A report from GMENAC has estimated that between 1975 and 1990, the number of active physicians will continue to outpace population growth and will increase by 58%, reaching a total of nearly 600,000. Thus, the ratio of physicians to 100,000 population should reach 245 in 1990.[2] All of this increase from 1975 to 1990 will occur basically as a result of the number of physicians educated and trained in the United States. The restrictive impact of the Health Professions Educational Assistance Act

of 1976 (PL 94-484) has markedly reduced the immigration of foreign medical graduates who are not American citizens. To enter this country, foreign physicians with temporary visitor visas are required to return to their country of origin unless they can change their status to permanent immigrant under the family preference visa category. All future, new-entry, permanent resident physicians must successfully complete the required National Board of Medical Examiners Visa Qualifying Examination.

Summary

The question of adequate physician supply has received a variety of answers in the past 20 years. As detailed above, government at all levels reacted to the perceived physician shortage by emphasizing the need to increase the supply of physicians. This was primarily accomplished by increasing the production of American educated and trained physicians and by providing a relatively easy access of foreign medical graduates into the United States. As a result, the active physician supply between 1960 and 1975 increased by nearly 50%, from 136 per 100,000 population in 1960 to 177 per 100,000 in 1975.

It is interesting to note that a form of market response to what may now be perceived by some as a plethora of physicians based on projections to 1990 may be occurring. Applicants to the 1978-79 first year classes in American medical schools totaled 36,636, a decline of 10% below the previous year.[4] This occurred at a time when the actual number of first year positions increased by 463 places. As a consequence, the chances of being accepted increased from 39% in 1977-78 to 45% in 1978-79[4] Thus, projections to 1990 based on 1975 data may be erroneous, once again raising the question of whether a shortage or pethora in the number of physicians exists. Subsequently, more recent governmental action through the limitations placed on immigration of physicians and reduced capitation grants to medial schools has acted to reduce what is now perceived as a plethora of physicians.[2]

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The author believes that the private physician should be acquainted with the problems of and future plans for the care of the mentally retarded population.

The Mental Retardation Institution and Its Relationship With Community Programs

JULIAN Q. WATTERS, M.D., *Atlanta**

THE MENTAL RETARDATION institution must increasingly become a resource for those who are being cared for in the community. It should serve as a respite facility to give needed relief to parents who have emergencies or who are exhausted in the difficult task of caring for a retarded child. A physician associated with the retardation institution should furnish medical diagnostic and evaluation services to those in the community. This physician should be able to call on the institution for laboratory, x-ray, cytogenetic, and specialty clinics. This should be done whether the diagnostic and evaluation service is located in the community or in the institution. There is a great need for specialty services such as orthopedics, neurology, ophthalmology, and dental care.

There is a growing need for a group to coordinate the work of the community and the institution. This group should facilitate the execution of court orders, aid in finding adequate beds in the institution, and advise in carrying out community programs. The passage and implementation of Public Law 94-142 has mandated a growing role by the community in delivering service to the developmentally disabled.

Early Enrichment Programs for Preschoolers

The first role of the community services should be the establishment of Early Enrichment Programs. The program should be administered by a comprehensive, multidisciplinary team, including therapists (physical, occupational, speech/language), developmental specialists (educator or psychologist), social workers, nurses, and pediatricians. The population served by the program should be selected from infants who are "at risk." The program should run for at least 3 years, after which time the child should be referred to a preschool program as suggested by Public Law 94-142.

The decision to classify an infant "at risk" depends on factors in his social, economic, environmental, and family life, as well as genetic, maternal, gestational, obstetrical, and perinatal condition. Mothers may be at risk of producing retarded children if they are under 15 or over 40 years of age, poorly educated, smoke excessively, drink alcohol excessively, or exhibit an atypical family or lifestyle. Other factors which add to the risk include maternal mental retardation, epilepsy, chronic severe asthma, nephritis, rheumatic fever, hypothyroidism, and pregnancy complications such as premature rupture of membranes over 48 hours, intrauterine placental and cord complications. Obstetrically, complications such as breech and forceps delivery relate significantly to later cerebral palsy. Neonatal predictors of later cerebral palsy are: (1) birth weight under 2000 grams, (2) neonatal seizures, (3) Apgar scores of 3 or less at 5 minutes, (4) head size of more than 3 standard deviations of the mean, (5) diminished movements and/or cry over 24 hours, (6) thermal instability, (7) persisting need for gavage feeding, (8) recurring episodes of hypo- or hypertonicity, (9) apneic episodes, and (10) hematocrit of less than 40%. Other complications include:

* Dr. Watters is a pediatrician. He is currently with the Georgia Department of Human Resources and the Georgia Retardation Center in Atlanta. Address reprint requests to him at 1802 Fisher Trail, N.E., Atlanta, GA 30345.

respiratory distress syndrome, enterocolitis, hypoglycemia secondary to maternal diabetes, conditions requiring continuing ventilation, chromosomal or metabolic disorders, congenital anomalies, twinning, particularly monozygotic, and placental arteriovenous anastomosis malformations.

The goals of an Early Enrichment Program are to: (1) help impaired babies derive satisfaction from improving performance, (2) to provide parents with direction and a support system, (3) to foster the baby's recovery if possible. This does not infer anticipated repair of brain damage but is aimed at finding improved development of skills. The Early Enrichment Program must not promise more than it can produce. It must be remembered that there is no documentation that babies can compensate for the effects of moderate to severe brain damage. Dr. Peggy Ferry[3] warns that personnel may unintentionally convey to parents the message that stimulation and intervention will, in effect, grow brain cells. The effects of intervention may be no better than those of maturation. It may best be said that early enrichment is an art rather than a scientific fact.

An Early Enrichment Program could consist of the following problems and procedures:

Problem	Procedure
(1) Poor head control	Place infant on side in flexed position, elevate and rotate the head in various positions, do range of motion exercises for limbs
(2) Poor eye contact	Place bright, noisy toys in the center and at the side of the crib, dangle toys in front and shoulder high
(3) Semi-fisted hand	Squeeze toys in hand, reinforce hand squeeze, brush-press hand
(4) Sucking/feeding difficulties	Touch, stroke, stretch, pucker lips, press nipple on tip of tongue, support chin with fingers during feeding
(5) Hearing enrichment	Expose each ear to a variety of sounds, turn baby's head in direction of voice
(6) Language enrichment	Vocal and imitative sound play, imitate voice inflections

Persons Beyond School Age

The other group of retarded persons who should be served by the community is that beyond school age. Some of these individuals can benefit from job training programs offered by the vocational rehabilitation service. Experience has shown, however, that very few of them can compete with others in the job market but must work instead in a "sheltered" situation. In some such sheltered programs, contracts are secured with local industries, and the retarded adults who are able to do the required work are paid for what they do. Though the amount of remuneration is small, the opportunity to be paid for their work can add immeasurably to their self esteem.

The availability of alternate living arrangements for retarded adults is important. There is a critical need to establish more alternate living arrangements, such as group homes, developmental homes, apartments, and boarding homes if the community services and programs are to succeed. If the federal government drastically curtails grants to the communities, these funds must be raised locally.

Too frequently, retarded individuals have behavior problems which are so aggressive and unsocialized that they must be medicated in the local mental health clinics. Often, the retarded patient who has behavior problems is shunted from the community to the mental health facility to the jail in an endless fashion. One solution to this problem would be to establish a service either at the mental health facility or at the retardation center which would keep these persons long enough to stabilize them. The stabilization can often be done without the use of psychotropic drugs with the proper use of behavior management techniques.

Medical science and good care have made it possible for many retarded people to reach old age. Many of them appear to age prematurely compared to the average population. Not only do older retarded persons need nursing home facilities in the community but there are those who are in mental retardation institutions who need such care. For this reason, the establishment of an intermediate care nursing home facility on the campus of the retardation institution should be considered.

Advances in the services for the retarded both in the institution and in the community have greatly increased in the past 10 years. In order to keep abreast of progress and to satisfy the needs in this area, attention must be given to the several problems discussed here and to their possible solutions.

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The need for intensive care facilities and specially trained nursing personnel for patients with invasive cancer is stressed.

Cervical Carcinoma in Georgia

GEORGE A. JOHNSTON, JR., M.D., *Columbus, Ohio,* and NEVIA WILSON-BELL, M.D., *Macon**

In the 1930s, invasive uterine carcinoma was the most common malignancy in American women. Today, approximately 10,000 deaths due to uterine cancer occur annually, with 7,000 due to cervical cancer and 3,000 to uterine endometrial cancer.[1] The decline in cervical carcinoma is primarily the result of using colposcopy and the Pap smear to screen patients for early cervical epithelial changes in the non-invasive stage. There have been numerous speculations as to the etiology of this disease. The presence of genital herpes type II virus implies a venereal transmission of this disease.[2]

Population at High Risk

Epidemiologic studies have identified segments of the population at high risk. Women in low socioeconomic groups, urban areas, with early parity, multiple sex partners, and a history of early sexual activity are at increased risk for cervical carcinoma. Black and Puerto Rican women have the highest incidence, and nuns and Jewish women have the lowest.[3]

Carcinoma of the cervix has grave implications for black women not only because of its high incidence but also because of the poor survival rates associated with it. In analyzing results from four cancer treatment centers between 1967 and 1973, the National Cancer Institute reported an overall 77% 5-year survival rate in whites and a 47% 5-year survival rate in blacks.[4] Since approximately one in 20 black American women live in Georgia, we in this state have good reason to be concerned about the poor prognosis of this disease.

The Third National Cancer Survey conducted between 1969 and 1971 revealed a high incidence of pre-invasive and invasive carcinoma of the cervix in white women in the large southern cities of Atlanta, Dallas, and Birmingham. Caution should be used when evaluating such statistics, however, because they may reflect better disease reporting. Yet there does seem to be a "Southern trend" worth noting.[1, 5] Other reports have derived similar conclusions regarding the high incidence of cervical carcinoma in the white population in selected Southern cities.

Treatment

Optimum treatment of cervical carcinoma involves a team approach, with the radiation therapist, medical and surgical oncologist, pathologist, sociologist, and nursing staff working together. Cancer referral centers offer the most extensive facilities for this approach (Table 1). The treatment of cervical cancer, just as with any other cancer, should be highly individualized, taking into account the extent of the disease and the patient's general health. In situ carcinoma can be treated with local therapy (cautery, cryotherapy) or surgically (cone biopsy or hysterectomy), depending on the extent of disease, age of the patient, and desire for more children. In general, radical surgery is reserved for microinvasive, stage Ib and stage IIa disease, and the more advanced stages are treated with radiation (Table 2).

TABLE 1 — Referral Centers for Gynecologic Cancer in Georgia

1. Talmadge Hospital	Augusta
2. Crawford Long Hospital	Atlanta
3. Emory-Grady Hospital	Atlanta
4. St. Joseph's Hospital	Dunwoody
5. Medical Center of Central Georgia	Macon
6. Erlanger Hospital	Chattanooga, TN (for cases in North Georgia)

* Dr. Johnston is Assistant Professor, Department of Ob-Gyn, Ohio State University, Columbus, OH; Dr. Wilson-Bell is with the Department of Ob/Gyn, Mercer University School of Medicine, Macon. Send reprint requests to Dr. Johnston, Dept. of Ob-Gyn, Ohio State University, N645 West 10th Ave., Columbus, OH 43210.

TABLE 2 — Stages of Cervical Cancer

Stage 0	Carcinoma in situ, intraepithelial carcinoma.
Stage I	Carcinoma confined to the cervix (extension to the corpus should be disregarded).
Stage Ia	Microinvasive carcinoma (early stromal invasion).
Stage Ib	All other cases of stage I. (Occult cancer should be marked "occ.")
Stage II	The carcinoma extends beyond the cervix but has not extended to the pelvic wall. The carcinoma involves the vagina, but not the lower third.
Stage IIa	No obvious parametrial involvement.
Stage IIb	Obvious parametrial involvement.
Stage III	The carcinoma has extended to the pelvic wall. On rectal examination there is no cancer-free space between the tumor and the pelvic wall. The tumor involves the lower third of the vagina. All cases with hydronephrosis or nonfunctioning kidney.
Stage IIIa	No extension to the pelvic wall.
Stage IIIb	Extension to the pelvic wall and/or hydronephrosis or nonfunctioning kidney.
Stage IV	The carcinoma has extended beyond the true pelvis or has clinically involved the mucosa of the bladder or rectum. (A bullour edema does not classify as stage IV.)
Stage IVa	Spread of the growth to adjacent organs.
Stage IVb	Spread to distant organs.

From FIGO.

Central recurrent disease which is surgically resectable may be treated by pelvic exenteration.

The American Cancer Society estimates that there will be 1,200 new cases of invasive uterine cancer in Georgia in 1981. An estimated 250 associated deaths will occur. The majority of these will be from uterine cervical disease.[1] In view of the current state of the art, the challenge to the medical community is quite clear: (1) Undertake more aggressive screening in the high-risk population. (2) Support projects that enhance the public's awareness of malignancies. And (3), early referral of cancer patients to cancer treatment centers. If equipment is not available locally to evaluate in situ or invasive disease, the patient should be referred to a cancer treatment center. Patients needing radical surgery for invasive disease require intensive care facilities and a nursing staff that is prepared to manage such critically ill patients.

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PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

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To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: *Coumarin-type anticoagulants.* The physician should be cautious when administering Rufen to patients on anticoagulants.

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PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

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Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTIONS). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecomastia, hypoglycemia. **Cardiovascular:** arrhythmias (Sinus tachycardia, bradycardia, and palpitations). **Renal:** decreased creatinine clearance, polyuria, azotemia.

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Preservation of the Confidentiality of Medical Review Committee Proceedings Under Georgia Law

ROBERT N. BERG, *Atlanta**

THE AUGUST, 1980, "Legal Page" dealt with the case of *Eubanks v. Ferrier,*[1] in which the Supreme Court of Georgia interpreted for the first time the extent of confidentiality accorded to the proceedings of medical review committees under Ga. Code Chapter 88-32 (the "Statute"). Although the Court upheld the constitutionality of the Statute in the *Eubanks* case, its holding on the scope of protection provided by the Statute was relatively limited, in view of the question before the Court — whether or not a plaintiff could obtain information about a medical review committee proceeding in which the plaintiff's own treatment was discussed?

Recently, the Supreme Court of Georgia once again was faced with the question of interpreting the Statute, in a case which involved, on a wider scale, the scope of protection provided by the Statute to medical review committee proceedings.

Background

The Statute was enacted in recognition of the confidentiality needed for medical review committees to function properly. Among other things, the Statute provides a limited immunity from liability to persons serving on medical review committees. Moreover, the Statute generally prohibits the discovery or introduction into evidence in civil actions instituted against health care providers of the records or proceedings of medical review committees.

In *Hollowell v. Jove,*[2] the factual situation involved a patient who was admitted to the hospital in early December, 1973, with a diagnosis of transcervical fracture of the hip. In late December, 1973, the patient was released from the hospital, but was returned to the hospital's emergency room 5 hours later and pronounced dead on arrival. An autopsy indicated that the patient had died of a pulmonary embolism.

The decedent's daughter brought an action in federal court, alleging that the attending physician had failed to undertake prophylactic measures to prevent the formation of blood clots in the decedent's legs, and that he therefore was negligent. The plaintiff further alleged that the hospital was negligent in allowing the attending physician to treat patients when it knew or should have known that the attending physician lacked the necessary skill, training, and experience to treat patients suffering from the condition for which the decedent was hospitalized.

During discovery proceedings, a dispute arose between the plaintiff and the defendants concerning certain interrogatory questions propounded to the defendant

* Prepared at the request of the Medical Association of Georgia. Mr. Berg is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

hospital and certain deposition questions asked of the attending physician with respect to whether or not any hearings or proceedings were conducted by committees of the defendant hospital relating to the care provided by the attending physician to the decedent *or to any other patient whom he had treated in the hospital*. The attending physician and the hospital objected to these interrogatories and deposition questions on the grounds that they sought information of a privileged, confidential, and non-discoverable nature by virtue of the provisions of the Statute.

The trial court initially ruled that, with the limited exception of certain documents unrelated to any investigation of the incident in question (which the hospital was required to produce), the plaintiff was not entitled to the information which she sought. Upon reconsideration, the trial court modified its decision by further limiting the documentation required to be produced by the hospital.

In January, 1978, the trial was held, and the jury found in favor of the hospital and attending physician. The plaintiff then appealed to the Fifth Circuit Court of Appeals on the grounds that the various orders of the trial court resulted in the plaintiff being unable to obtain any records generated by the defendant hospital's peer review committees, whether or not the committees actually considered care rendered to the decedent or care rendered to other patients. The plaintiff further alleged that, by virtue of the trial court's various orders, the plaintiff was prevented from developing any admissible evidence from persons who may have been present at any meetings of the hospital's committees.

Pursuant to the appropriate procedural rules,[3] the Fifth Circuit certified certain questions arising out of the case to the Georgia Supreme Court. Among these questions were: (1) Does the protection provided by the Statute cover records relating to care of patients other than the plaintiff or the decedent whose estate or interests are represented by the plaintiff? (2) Does it cover information related to the defendant physician's general competence, competence to treat the condition from which the decedent suffered as evidence by that physician's treatment of other similarly afflicted patients, or competence to perform medical procedures other than those specifically involved in the subject litigation? and (3) Does it cover information such as whether any medical review committee meetings related to the care of the decedent whose interests are represented by the plaintiff were held or who attended such meetings?

Scope of Confidentiality of Medical Review Committee Proceedings

Initially, the Supreme Court analyzed the specific language of the *Ga. Code Ann.* §88-3204, which provides, in pertinent part:

> "The proceedings and records of [medical review] committees . . . shall not be subject to discovery or introduction into evidence in any civil action against a provider of professional health services arising out of the matters which are the subject of evaluation and review by such committee, and no person who was in attendance at a meeting of such committee shall be permitted or required to testify in any such civil action as to any evidence or other matters produced or presented during the proceedings of such committee or as to any findings, recommendations, evaluations, opinions, or other actions of such committee or any members thereof."

In the Court's view the term "proceedings and records" included records of a medical review committee relating to care of patients other than the plaintiff or the decedent represented by the plaintiff. According to the Court, "(s)uch a broad range exclusion is necessary to promote the underlying purpose of the section and is clearly authorized by the statutory language. It is apparent that a candid evaluation of a physician's performance will likely necessitate a discussion of services rendered to patients other than the plaintiff or the plaintiff's decedent." As a result, the Court held that the confidentiality provided to medical review committee records

and proceedings is equally applicable to records and meetings of those committees relating to the care of patients other than the plaintiff or decedent.

Secondly, the Court found that Section 88-3204 applied to information generated in the course of medical review committee proceedings which relates to the physician's general competence, his competence to treat the condition from which the decedent suffered as evidenced by his treatment of other similarly afflicted patients, and his competence to perform medical procedures other than those specifically involved in the subject litigation.

Thirdly, the Court held that the discovery of whether *any* medical review committee meetings relating to the care of the decedent were held and who attended those meetings necessitated an intrusion into the "proceedings" of the committee. The Court therefore concluded that such information would not be discoverable under Section 88-3204.

The Court's opinion was not totally one-sided in favor of medical review committees, in that, in response to two other certified questions from the Fifth Circuit, the Supreme Court held (i) that the Statute could not be applied retroactively to medical review committee hearings held prior to the date of the enactment of the Statute, and (ii) that the Statute did not apply to protect information generated or maintained by committees other than those satisfying the definition of a "medical review committee" under the Statute.

On the whole, however, the decision by the Supreme Court in the *Hollowell* case represents a relatively expansive view as to the scope of confidentiality of proceedings of medical review committees under the Statute and a recognition of the fact that "constructive professional criticism cannot occur in an atmosphere of apprehension that one doctor's suggestion will be used as a denunciation of a colleague's conduct in a malpractice suit." Rather, the purpose of the Statute, as seen by the Court, is to achieve "the goal of medical staff candor at the cost of impairing plaintiff's access to evidence."

NOTES

1. 245 Ga. 763 (1980).
2. 247 Ga. 678 (1981).
3. Rule 36(a) of the Rules of the Supreme Court of the State of Georgia provides:

"When it shall appear to the Supreme Court of the United States, to any Circuit Court of Appeals of the United States, or the Court of Appeals of the District of Columbia that there are involved in any proceeding before it questions or propositions of the laws of this State which are determinative of said cause and there are no clear controlling precedents in the appellate court decisions of this State, such federal appellate court may certify such questions or propositions of the laws of Georgia to this court for instructions concerning such questions or propositions."

editorials
editorials
editorials

The Hazards of Smoking During Pregnancy — Physicians Obliged To Tell

It was not until the mid 1930s that observations were made noting the possible deleterious effects of smoking on the outcome of pregnancy. Today, research on the relationship between cigarette smoking and pregnancy has established that there are definite risks to both the fetus and the mother associated with cigarette smoking during pregnancy. These include increased rates of perinatal mortality, delivery complications (abruptio placentae, placenta previa), prematurity, and low birth weight. Even long-term adverse effects on physical and intellectual development have been reported.

Moreover, women who take the "Pill" are at greater risk of cardiovascular disease if they smoke cigarettes. There is also evidence that nicotine is present in the breast milk of lactating mothers who smoke.

No doubt remains, then, of the hazards of smoking unique to women. But as Mr. Phillips points out in his article on page 787, few question the right of a woman or a man in our free society to smoke, regardless of the risks to her or his body. In the case of a smoking pregnant woman, however, another's nascent rights are being abrogated — those of the developing fetus. The smoking mother jeopardizes not only her own health and well being but that of her fetus as well.

And yet, regretably, many women are not adequately informed regarding the nature and extent of the risks of smoking to their infants. Mr. Phillips made this point in his article, citing a 1975 DHEW study. That is where our responsibility as physicians lies: we must inform our pregnant patients of the known hazards of smoking to a fetus.

There are probably many women who, had they known their smoking posed a threat to their baby, would have, at the very least, reduced the number of cigarettes smoked or stopped smoking altogether. How many of your patients have told you this? How many times have we as physicians remained silent on the issue of smoking when conferring with a pregnant patient after a routine monthly examination, during which time she puffed on a cigarette? Did we do so because we did not want to upset her? Or, acknowledging that stopping smoking can be difficult, were we reluctant to add stress to her at this pregnant time? Both motives indicate the right sort of compassion — but lack the right sort of professional judgement.

We cannot be responsible for a woman's decision to smoke or not, but we must be responsible for informing her of its risks to the fetus. To fail do to so is analagous to not advising against routine radiographic abdominal studies during pregnancy or potentially teratogenic drugs. Since there is a dose-response relationship associated with risks of smoking during pregnancy, even a reduction in the number of cigarettes smoked would pose less hazard to the fetus. The decision to cut down or quit smoking remains with the mother. But the obligation to present her with the facts *and* the choice remains with us.

J. Stuart McDaniel, M.D.
Ob-Gyn, Atlanta

Must Pride Go Before Destruction?

For those of us involved in the diagnosis and treatment of cancer, the annual cancer morbidity and mortality statistics are disturbing. In spite of ongoing research and new diagnostic and therapeutic modalities, progress in controlling this disease has been excruciatingly slow.

As one looks at the cancer literature, it becomes apparent that articles in the sub-specialty journals indicate higher survival rates and less morbidity than those reflected in general statistics. More accurate and earlier diagnosis, extended resections, adjuvant chemotherapy, pre-op and post-op radiotherapy and other modalities obviously influence survival. Can it be that our cancer patients are not receiving the benefits of special expertise in the field?

There is a difference between adequate care and optimum care. The dirth of medical information is too overwhelming to allow anyone to claim that he is up to date in all fields of medicine. The most voracious reader or the physician with innumerable CME credits cannot usually achieve expertise in any but his chosen field.

Disconcerting as the thought may be, one has only to serve on a tumor board, review cancer registry charts, or simply look around the community to recognize that often the best treatment regimens are not being used. In spite of the specific training of bonafide specialists in the field, other physicians too often ignore their presence.

Two disturbing reasons come to mind to explain the failure to refer or at least obtain the advice of the surgical and medical sub-specialties: economics of medical practice or pride of the treating physician.

I will not dwell on the economics of medical practice, as I cannot accept that any worthwhile physician would sacrifice patient care for greed. Nor can I believe that any physician would allow sacrosanct referral patterns to influence treatment to the detriment of a patient. Pride, however, is an ingrained physician trait. The need to be the most accomplished and to know more than the next guy begins even before medical school. Properly channeled, it is a necessary, driving force in our field. It can subconsciously become, however, a self-consuming, self-serving trait, and it can and will ultimately affect a patient adversely.

Cancer risks are too great and family tragedies too common to allow a physician's pride to stand in the way of optimum care. A reassessment of our attitudes towards our patients may perhaps result in more frequent and timely referrals to those best trained to treat cancer. Perhaps we can reduce the cancer carnage to reflect the best statistics available. To do less is unacceptable.

C. B. Futch, M.D., Surgeon
Brunswick

heart page
heart page
heart page

Coarctation of the Thoracic Aorta

WILLIS H. WILLIAMS, M.D., *Atlanta**

COARCTATION OF THE THORACIC AORTA — obstructive narrowing near the ductus arteriosus — is a congenital anomaly posing diagnostic and therapeutic problems from infancy through adulthood. Out of 10,000 live births, seven children will have a coarctation of the aorta. It occurs three times more frequently in males and is present in half of the children with Turner's X-O gonadal dysgenesis. Half of symptomatic infants with coarctation have an associated ventricular septal defect. A bicuspid aortic valve is present in half of all individuals with coarctation.

Collateral circulation sufficient to provide blood flow around the coarctation will develop in half of those born with this defect, allowing them to remain virtually symptom-free until their 20s or 30s. Headaches, cold lower extremities, hypertension, epistaxis, claudication, diminished or absent femoral pulses, mild dyspnea or easy fatigability on exertion, and disproportionate body development (large chest and arms with small legs) may be noted as the child grows. Life-threatening complications include hypertensive encephalopathy, cerebral arterial aneurysms, dissecting aortic aneurysm, aortic cystic medial necrosis, aortic rupture, aortic valvular regurgitation, left ventricular failure, and bacterial endocarditis. The median age of death for those surviving infancy and having no surgical correction of their coarctation is 31 years.

Early correction of coarctation reduces residual hypertension and the consequences of left ventricular hypertrophy.

The remaining half of all children born with coarctation are less fortunate. Inadequate collateral circulation is present. They will require hospitalization for treatment of congestive heart failure within the first two months of life, with early diagnosis, medical management, and, in many cases, surgical correction. Symptoms are related to severe congestive heart failure — difficulty feeding, poor weight gain, failure to thrive, diaphoresis, poor peripheral perfusion, and dyspnea. Physical examination of the symptomatic infant reveals tachypnea, labored respirations, grunting, suprasternal and subcostal retraction, rales, hepatic enlargement, periorbital edema, a gallop rhythm, tachycardia, and hyperdynamic right and left ventricular impulses. Diminished or absent femoral pulses may be detected, although the presence of femoral pulses does not rule out the existence of a coarctation. An associated ventricular septal defect or patent ductus arteriosus may

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make a difference between upper and lower body pulses or render blood pressures undetectable. More often, there will be a generalized weakness of all pulses due to severe left ventricular failure. It is not unusual for murmurs, suggestive of associated intracardiac defects, to remain inaudible or nonspecific until cardiac output is improved by inotropic support. The chest x-ray of the symptomatic infant with coarctation characteristically shows cardiomegaly, pulmonary venous congestion, pulmonary edema, and, if there is an associated ventricular septal defect, increased pulmonary arterial blood flow. The electrocardiogram reveals right ventricular hypertrophy, right atrial hypertrophy, and right axis deviation. Biventricular hypertrophy may be present. T wave inversion is commonly present over the left precordium. Cardiac catheterization and angiocardiography confirm the presence of the coarctation, define the surgical anatomy, and identify associated intracardiac defects.

The critically ill infant with suspected coarctation is treated with digitalis, intravenous diuretics, increased inspired oxygen, and sedation. Respiratory decompensation may mandate intubation and ventilatory assistance. Oliguria and hyperkalemia require ion exchange resins, glucose, sodium bicarbonate, calcium gluconate, and fluid restriction. Low cardiac output may improve with infusion of a potent inotropic medication, usually dopamine. Acidosis is corrected with sodium bicarbonate. The infusion of prostaglandin E_1 usually produces dramatic clinical improvement in the infant by re-opening the ductus arteriosus, thus increasing perfusion of the kidneys, liver, viscera, and lower body muscle mass.

Surgical Correction of Coarctation

Infants with one or more associated cardiac anomalies and all symptomatic infants with isolated coarctation of the aorta who fail to improve dramatically with simple medical management should undergo immediate surgical correction by one of the five operations currently used. These are: (1) resection with end-to-end anastomosis; (2) resection with interposition of a vascular graft; (3) bypass from the subclavian artery and ascending aorta to the descending aorta without resection of the coarctation, using a vascular graft; (4) Dacron patch aortoplasty, and (5) subclavian arterial flap aortoplasty.

The two most popular methods for correction of coarctation in infants and small children are Dacron patch aortoplasty[1] and subclavian arterial flap aortoplasty,[2] the latter operation having been used by us almost exclusively over the past 2 years with excellent results. The left subclavian artery is divided in the apex of the left hemithorax. An incision is made along the full length of the artery and is extended down across the coarctation onto the descending thoracic aorta. Fragments of in-folded coarctation membrane are excised at the site of extreme narrowing. The flap of subclavian artery is opened up and sutured to the aortic wall across the coarctation, thus enlarging the aorta with living arterial wall which will grow with the child. There are no circumferential suture lines to restrict growth, and no prosthetic material is used. Recurrence of coarctation has been uncommon following this relatively simple operation.

The recently combined adjuncts of prostaglandin E_1 infusion, subclavian arterial flap aortoplasty, sodium nitroprusside, and propranolol have improved the surgical prognosis.

Intraoperative hypertension and troublesome postoperative paradoxical hypertension[3] seen in older children and adults are rigorously controlled using sodium nitroprusside infusion acutely and propranolol (Inderal) and/or reserpine as needed thereafter. We have seen no occurrence of necrotizing visceral arteritis (postcoarctation syndrome) when postoperative hypertension has been pharmacologically prevented. Postoperative ileus for 2 or 3 days remains common, however.

Asymptomatic children with significant coarctation of the aorta should be corrected surgically between the ages of 4 and 8 years. Increasing evidence

suggests that early correction of coarctation reduces residual hypertension and the consequences of left ventricular hypertrophy, probably by shortening the period of time during which nonpulsatile renal arterial perfusion stimulates the renin-angiotensin mechanism.

Operative risk is now low, and long-term results are excellent following repair of isolated coarctation of the aorta, even in the critically ill infant.[4] The recently combined adjuncts of prostaglandin E_1 infusion, subclavian arterial flap aortoplasty, sodium nitroprusside, and propranolol have improved the surgical prognosis. Unfortunately, an operative mortality of 25% or more must still be anticipated for the infant having associated complex cardiac defects.

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J. WARNER RAY, M.D., and KAREN W. McGARRY, *East Point**

The Association of Community Cancer Centers

In 1980, there were approximately 700,000 new cases of cancer diagnosed in the United States and approximately 13,000 new cases in the state of Georgia. The Association of Community Cancer Centers (ACCC) reports that 90-95% of these patients will be cared for in community hospitals. The ACCC was organized in 1972 to provide a national forum for discussion of problems common to community hospitals caring for cancer patients. Since its inception, 199 community hospitals throughout the United States have joined this organization to work toward the goal of improved quality of care for cancer patients in the community hospital setting.

The ACCC has provided a forum for community cancer leaders to present to the United States Congress, the President's Cancer Panel, and the National Cancer Institute the requirements that community hospitals have in providing care for 90% of all cancer patients. As a result of extensive efforts by community cancer leaders, the National Cancer Institute, Division of Resources, Centers, and Community Activities, recently awarded contracts to 23 community hospitals throughout the United States to field test the hypothesis that a multidisciplinary team approach in the community hospital can result in optimal care of cancer patients. The impact of such a program should be to reduce cancer morbidity and to improve the quality of life in cancer patients.

A successful community hospital oncology program can interrelate with other local hospitals whose resources are not directed toward comprehensive cancer care.

The significance of a community hospital oncology program is the impact that such an organized program can have in meeting the needs of cancer patients within the community. The ACCC exists and has flourished because community hospitals have recognized that the care of cancer victims involves a multifaceted-multidisciplinary effort. Cancer is a devastating illness but one that can, in many cases, be cured and, in other cases, often be converted from an acute life-threatening illness to a chronic illness in which the quality of life is often good and

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The South Fulton Hospital/Georgia Cancer Institute CHOP is funded by NCI contract NO1-CN-15561 and the Tri-Cities Hospital Authority.

rewarding. Especially in the last 10 years, well-trained physicians have brought specialized training and talent to the community hospital, and these people have stimulated the development of excellent programs at the community hospital level. The community hospital in essence has become the significant national resource for the diagnosis, treatment, and care of cancer patients.

Specialists Involved in the Multidisciplinary Team Approach

The cancer patient has many requirements for proper care in addition to the diagnostic skill and knowledge of his/her family physician. Sophisticated diagnostic X-ray studies, including CT scanning, ultrasound, nuclear medicine, and angiography, must also be available. Clinical and anatomical pathology provide the chemical, hematologic, and histologic studies needed. Therapy must be approached in a multidisciplinary manner. General surgeons, surgical oncologists, otolaryngologists, gynecologists, gynecological oncologists, neurosurgeons, orthopedists, urologists, and thoracic surgeons must be available. Internists, gastroenterologists, nephrologists, pulmonologists, pediatricians, and infectious disease specialists are key physicians whose consultations are often needed. Hematologists and medical oncologists are indispensable in the overall management and evaluation planning. The radiation oncologist is another key physician who sees approximately 60% of all cancer patients at some point in their disease. He/she requires a multitude of support personnel, including technicians and nurses. Additionally, his/her tools include a varying array of photon energies from 75 KVP to 20 MEV, computer dosimetry, CT interface with computer dosimetry, and a multitude of treatment aids.

Cancer patients require in-patient services, and the newest team member has become the nurse oncologist. With specialty training beyond the graduate nurse level, he/she brings to the in-patient settings sophisticated nursing skills employed in the assessment, therapy, and discharge planning of cancer patients. He/she participates daily in the educational process of the staff, patients, and families.

Many paramedical support team members are needed. These people include social workers who assess the psychosocial needs of cancer patients and direct these patients and their families to appropriate community resources. Frequently, psychologists and psychiatrists provide insight into the psychologic needs of cancer patients. Dieticians, who can assess both in-patients and out-patients, are valuable for nutritional support, which is one of the mainstays of cancer therapy. Enterostomal therapists, physical therapists, Reach-to-Recovery specialists, and vocational rehabilitation specialists are all integral team members.

Sixty percent of patients with cancer are not cured. These victims and their families require further care beyond active diagnostic and therapeutic intervention. Supportive care in the home is most desirable from an economic, social, and psychologic viewpoint. A supportive care plan should be developed and presented to each cancer patient and his/her family by the community hospital oncology team. This team usually involves all the members mentioned above. In addition, community support agencies including the American Cancer Society, Hospice, Home Health Agencies, and others must have input into the supportive care plan. The clergy are invaluable team members for they add an extra dimension frequently needed during the bereavement process.

Oncologic Education

At the heart of the community oncology program is education. Dissemination of information and transmittal of the learning process is vital. A multidisciplinary tumor board, with free interchange of ideas and sharing of experiences on a professional level, becomes an effective educational resource. Seminars in oncology presented by local and national consultants provide further educational stimuli for the professional staff. A natural process of such an organized educational program could lead to the development of specific medical and nursing guidelines which could impact on the overall quality of care. Such guidelines can be de-

veloped by local physicians and nurses who participate in the daily care of cancer patients. A community hospital with a comprehensive multidisciplinary approach to cancer also requires a sophisticated library and a fulltime librarian who can function as a key resource person in the educational process.

The development and implementation of a community hospital oncology program in a local hospital requires the commitment and endorsement from the Board of Trustees and hospital administrators. Extensive planning of program components is essential as is the development of appropriate facilities. The willingness to support key personnel such as social workers and nurse oncologists is mandatory. A successful tumor registry has to be staffed, and participation in the American College of Surgeons Cancer Control Program is essential.

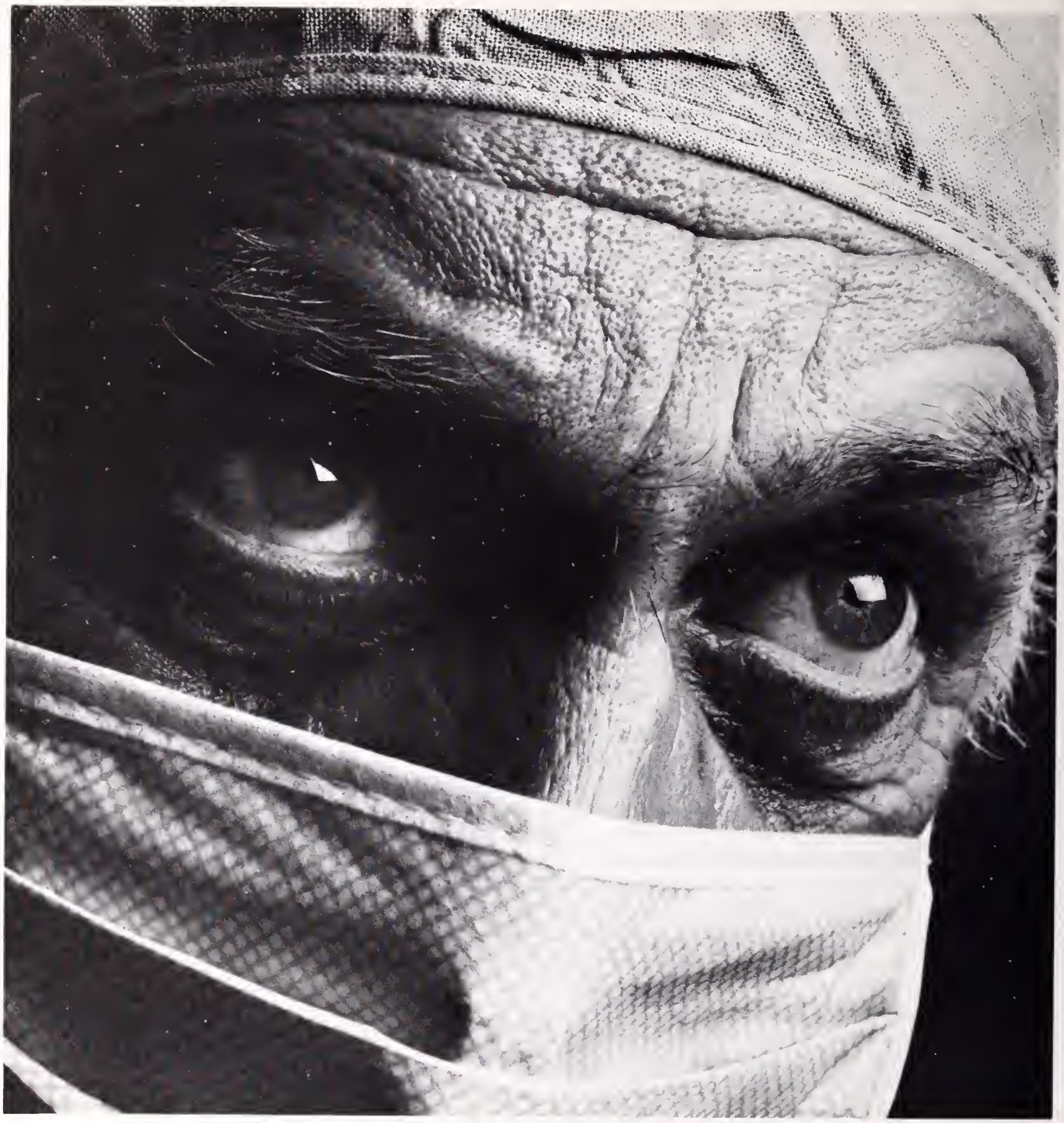
A successful community hospital oncology program can interrelate with other local hospitals whose resources are not directed toward comprehensive cancer care. In addition, the community hospital can coordinate with regional academic cancer centers to provide for mutual educational benefits, as well as to make scientific protocols for treatment available to patients with specialized cancer problems. In this way, selected cancer patients can contribute to the advancement of knowledge concerning responses to new and innovative treatments.

Importantly, the community cancer center can participate in the national effort against cancer, as community oncology programs become an effective and timely vehicle through which the National Cancer Institute and major academic centers can transmit newer, more effective modalities of treatment to patients within the community setting.

Congress can also be expected to respond more directly to the needs of community cancer patients, as their concerns are presented through an organized community hospital program and, subsequently, through the efforts of organizations such as the ACCC.

Summary

Organizing and establishing a sophisticated oncology program at the community hospital level requires an intensive effort from many groups within the hospital including physicians, nurses, support staff, and administrators. Once established, the beneficial impact of an organized community hospital oncology program is felt by each cancer patient in the community and by each professional who participates in delivering multidisciplinary cancer care to the patient.



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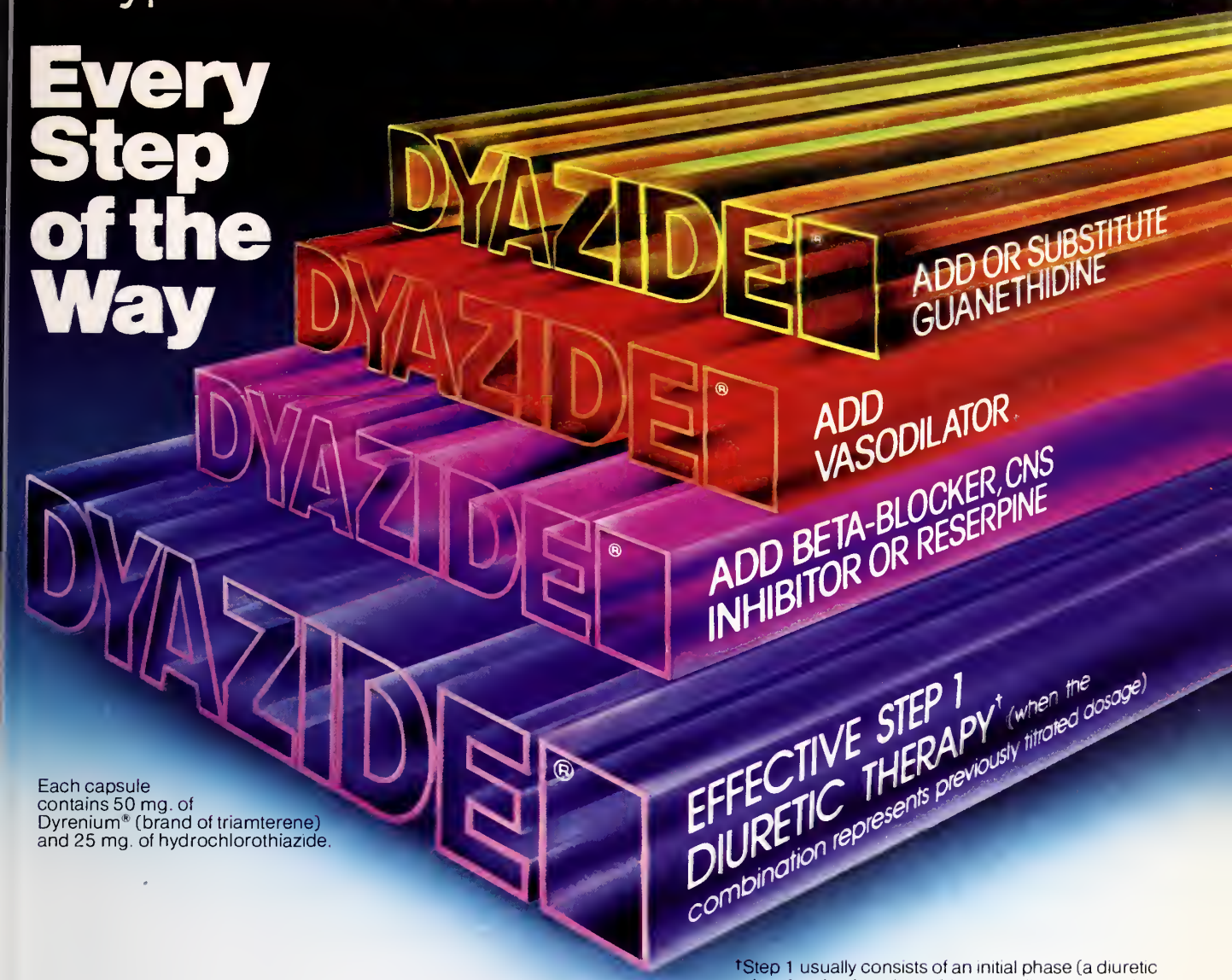
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Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently, both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

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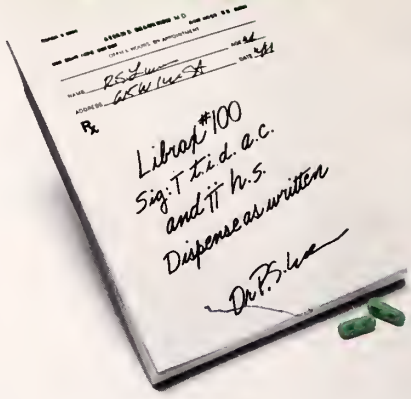
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Specify Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

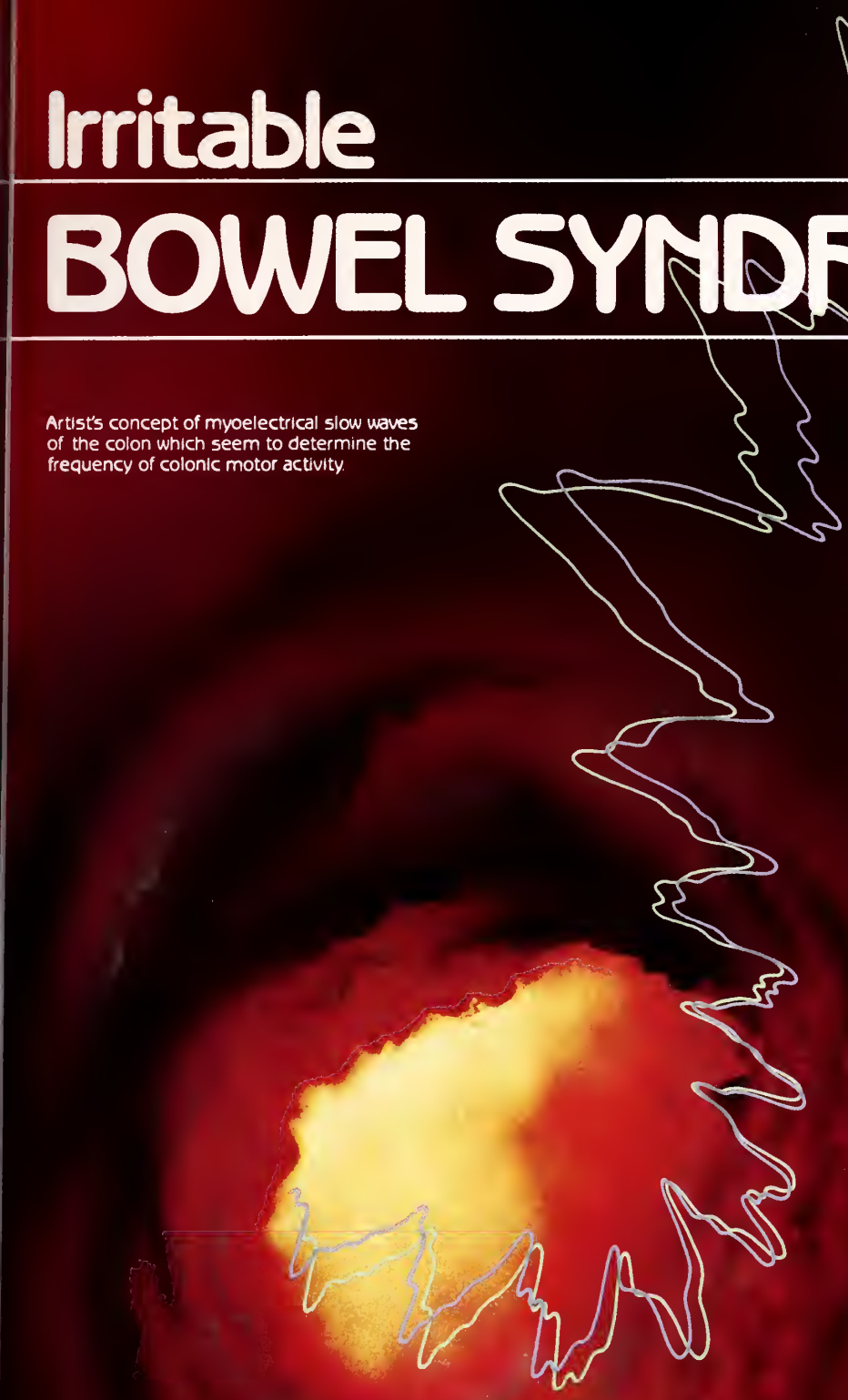
Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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A visible difference in myoelectric rhythms of the colon

Studies reveal an increased frequency of 3-cycles-per-minute slow wave basic electrical activity in the colons of patients with IBS—a significant difference in basic colonic rhythm patterns from normal subjects.[1,2] These findings suggest a physiological basis for the spasm and hypermotility characteristic of IBS. The role of severe anxiety in triggering or aggravating such symptoms has long been recognized. Consequently, treatment should focus on both aspects of the problem.

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References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med* 298:878-883, Apr 20, 1978. **2.** Snape WJ *et al*: *Gastroenterology* 72: 383-387, Mar 1977.

Specify Adjunctive **Librax®**

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Quinamm*
(quinine sulfate tablets)

CAUTION Federal law prohibits dispensing without prescription

BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g.) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus.

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision; however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS.) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties.

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM kg.) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative; when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision; tinnitus, deafness and vertigo; headache; nausea; vomiting; fever; apprehension; restlessness; confusion; and syncope.

Dermatologic-allergic: cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular, or scarlatinal); pruritus; flushing of the skin; sweating; occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related); epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSAGE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October 1980

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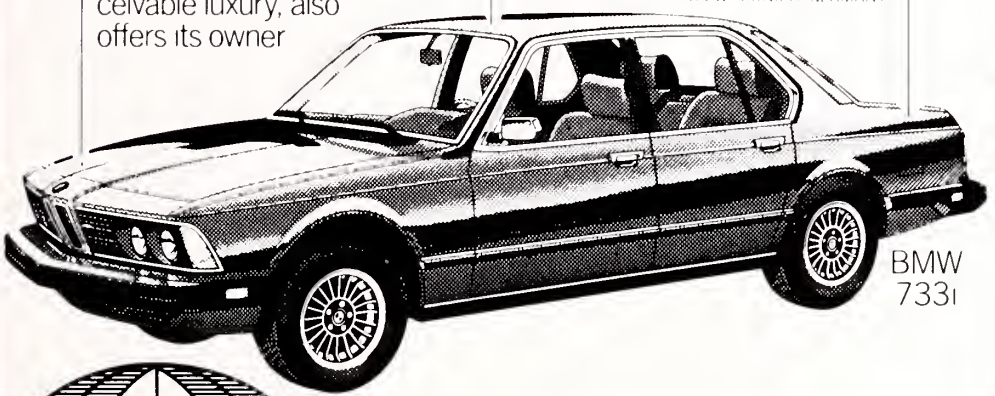
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president's letter



Medical Students — Vintage 1981

As a member of the State Board of Medical Education, I have had the recent opportunity to interview many medical students, most of them freshmen. The Board is charged by the State of Georgia to administer the Country Doctor Program. Under this program, students receive scholarships to attend medical school, and they agree to repay the state by practicing for 5 years in a rural Georgia community of less than 15,000 population.

These students are very bright and articulate young men and women who show every promise of becoming outstanding physicians. Many are proceeding directly into medical school from college, while others are doing so after having received advanced degrees or having pursued different careers. Most have worked in some type of medical facility as orderlies, administrators, managers, nurses, or science researchers. Still others have been emergency medical technicians, physicians' assistants, chiropractors, psychologists, etc.

As a group, these students are a little older and more mature and have had more experience with the various ramifications of health care than those in my peer group in medical school. They have the determination, perserverance, and dedication common to most medical students of any time. I am convinced that these medical students — vintage '81 — will be a credit to our profession. Georgians will be in good hands when these doctors finish their training and start their practices.

L. Newton Turk III M.D.

L. Newton Turk, III, M.D.
President, M.A.G.

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740 Hemlock St., Macon 31201

Sood, Pran N., Clayton-Fayette—ACT—ORS
150 Medical Way, Ste. D, Riverdale 30274

Stewart, Charles P., Jr., MAA—ACT—CHP
2151 Peachford Rd., Atlanta 30338

Velazco, Antenor, MAA—I&R—ORS
Grady Dept. of Orthopedics, 80 Butler St., Atlanta 30303

PERSONALS

First District

As of September 1, internist **Ruth-Marie Fincher, M.D.,** started a part-time practice in Hinesville with plans for a full-time practice in January '82.

In September, **Whitman Fraser, M.D.,** of Hinesville, addressed the Hinesville Lions Club on the dangers of stress.

Second District

Martin S. Fodiman, M.D., of Sylvester, was one of four physicians honored on August 27 at a reception for his affiliation with the Stewart-Webster Hospital.

Fourth District

Abraham H. Germaine, M.D., of Jonesboro, who was selected as Georgia's 1981 "Family Physician of the Year" in May, was named finalist for the 1981 Good Housekeeping "Family Doctor of the Year" award. The award is co-sponsored by *Good Housekeeping* magazine and the American Academy of Family Physicians. A special luncheon was planned at the annual scientific assembly of the AAFP in Las Vegas on September 21 for honoring all present and past winners of the award.

Claude Pope Cobb, Jr., M.D., family physician, has opened a full-time office at 5634-C N. Henry Boulevard in Stockbridge.

Fifth District

In September, **Richard J. Amerson, M.D.,** of Atlanta, was installed as president of the Georgia Surgical Society. **LaMar S. McGinnis, M.D.,** of Decatur, was named its president-elect.

James H. Litton, M.D., of Tucker, related the unique story of how he "snuck into town" and set up practice some 35 years ago in a feature article in the local newspaper. Dr. Litton currently practices at DeKalb General Hospital, Decatur Hospital, and Crawford Long Hospital.

Chief of Thoracic Surgery and trustee at St. Joseph's Infirmary in Atlanta, **William A. Hopkins, M.D.,** was appointed medical services consultant for the Ga. Dept. of Offender Rehabilitation.

In October, **Alfred A. Messer, M.D.,** an Atlanta psychiatrist, spoke on reasons for and problems associated with child abuse and child molestation to the Junior League of Atlanta, Inc., which has been active in promoting child advocacy programs statewide.

Nettleton S. Payne, III, M.D., was reappointed secretary for the St. Joseph's Hospital medical staff last August. Dr. Payne is certified by the American Board of Neurological Surgery and serves as secretary-treasurer of the Atlanta Neurological Society.

Nephrologist **Gregory Knowlton, M.D.,** was appointed chief of staff at St. Joseph's Hospital.

New medical/dental staff officers for 1981-82 at Northside Hospital are Atlantans **Milton S. Goldman, M.D.,** chief of staff, and **David E. Dalrymple, M.D.,** secretary-treasurer.

Clinton D. McCord, Jr., M.D., of Atlanta, is serving as national program chairman for the oculoplastic seminar at the November American Academy of Ophthalmology meeting in Atlanta. He is also program chairman for the American Society of Ophthalmic Plastic and Reconstructive Surgery, which follows the national academy meeting.

Sixth District

Harvey E. Merlin, M.D., a Riverdale urologist, recently completed microsurgical training for vasectomy reversal at the Johns Hopkins University School of Medicine in Baltimore, MD.

Seventh District

In September, orthopedic surgeon, **Scott Kleiman, M.D.,** of Austell, addressed the Austell Rotary Club on new surgical techniques and technology in sports medicine.

James D. Hull, III, M.D., general surgeon at Douglas General Hospital, is a member of the newly-formed Professional Advisory Committee of the Visiting Nurse Association. The first meeting of the committee was held on August 31.

Ninth District

John Ed Fowler, M.D., family practitioner in Rabun County, was selected as the 1981 recipient of the Appalachian Georgia Health Service Award at their annual meeting on September 10 in Cartersville. The Health Service Award is given annually by the AG-HSA, who, in the opinion of the panel, has contributed most significantly to the health care of the residents of the area.

Tenth District

As of August, **Ramesh K. Srivastava, M.D.,** was promoted to the active medical staff surgical team at Athens General Hospital and St. Mary's Hospital by the Hospital Authority of Clarke County and the Executive Committee of St. Mary's Hospital.

SOCIETIES

The Dougherty County Medical Society and its auxiliary held their annual barbecue and square dance on August 25. New physicians and their families were special guests.

On September 10, the **Muscogee County Medical Society** held its annual barbecue, an event to welcome new physicians into the community and host local legislators. MAG Associate Executive Director, Rusty Kidd, and James A. Kaufmann, M.D., of Atlanta, were special guests.

Members of the **Muscogee County Medical Society** are participating in a Physical Fitness Program, which includes jog/walk format, fitness tests, and profiles for each participant. The program is divided into two sessions: Sept. 14-Dec. 14, 1981, and Jan. 11-April 11, 1982.

DEATHS

Calder B. Clay, Jr.

Former Chief of Staff and Chief of Surgery at the Medical Center of Central Georgia, Calder B. Clay, Jr., M.D., died after a long illness on Monday, August 24.

Dr. Clay attended Duke University, the University of North Carolina, and graduated from the Medical College of Georgia. He also attended the University of Vienna while serving in the Army.

He was a Diplomate of the American Board of Surgery, a member of the Medical Association of Georgia, the American Medical Association, Bibb County Surgical Society, the Southeastern Surgical Society, and Fellow of the American College of Surgeons.

Survivors include his wife, two sons, his parents, one sister, and one brother.

William G. Love

William G. Love, M.D., former Chief of Surgery and Chief of Staff of two Columbus hospitals, died September 21 at age 67. A native of Washington, Ga., Dr. Love received his medical degree from Emory University School of Medicine. He was a Fellow of the American College of Surgeons and a member of the American Board of Surgery.

Survivors include his wife, one son, and one brother.

(PRA Award Recipients, Non MAG Members, Continued from p. 831.)

James William Parker, Hinesville
Bhakatkumar S. Patel, Baxley
Bharat Jayantilal Patel, Americus
Richard David Paustian, Atlanta
George Keck Powell, Fort Gordon
Roy Powell, Macon
Richard Allen Price, Savannah
J. William Pugh, East Point
Joel Herron Ranier, Atlanta
James Van Robertson, Blairsville
Cesar Rosa-Vazquez, Columbus
Deborah Rotenstein, Atlanta
Carla Elaine Samson, Columbus
David G. Seibel, Fort Benning
Michael Jay Sendak, Atlanta
Paul Cox Settle, Columbus
Hyun Chul Shin, Albany
Irineo Mina Sibal, Augusta
Paul Wilfand Siegel, Macon
Elpidio Juan Stincer, Augusta
Paul Junior Tilson, Savannah
John J. Treanor, Augusta
Angela Vela, Clarkston
James William Wade, Augusta
John L. Washington, Martinez
Barry S. Werman, Atlanta
Hall Baker Whitworth, Atlanta
Steven R. Whitworth, Savannah
Marcella D. Wood, Atlanta
Woo Young You, Fort Benning

Physician's Recogniton Award Recipients

LISTED BELOW *are those physicians in Georgia who have earned the AMA's Physician's Recognition Award (PRA) from June through August, 1981.*

The Award was established in 1969 "to recognize, encourage, and support physicians who participate regularly in continuing medical education and to emphasize the importance of developing more meaningful continuing medical education opportunities for physicians." A minimum of 150 credit hours of CME must be earned over a 3-year period to qualify for the Award. The hours may include such activities as conferences, residencies, teaching, writing, private reading, listening to cassettes, home study courses, consultation, and peer review; at least 60 of the hours, however, must be from formal CME programs sponsored or co-sponsored for Category 1 credit by organizations accredited for these activities.

The MAG House of Delegates has set a goal that all MAG members shall have received the PRA by 1985. We congratulate the following physicians who have distinguished themselves and their profession by their commitment to continuing education:

MAG Members

Benjamin S. Anderson, Cedartown
Ezzat Mufid Azaz, Augusta
William R. Beach, Douglasville
Frank Prague Bowyer, Macon
Robert Gardner Bradbury, Savannah
Rodney Mack Browne, Macon
Neil Davis Buggess, Dalton
Lynette L. Calvert, Augusta
Clifton Lamar Cannon, Savannah
Teresa Elaine Clark, Atlanta
Abraham B. Conger, Columbus
Robert T. Connor, Rome
Laurence Tarver Crimmins, Albany
Ervin Daniel DeLoach, Savannah
Fernando Urriza Duralde, East Point
J. Michael Epps, Augusta
Edwin Curtis Evans, Atlanta
Robert Clark Ferguson, Gainesville
Arlie Eugene Fiveash, Augusta
Henry Arthur Foster, Griffin
Milton Frank, III, Atlanta
James C. Freeman, Sylvania
Stefan Helmut Fromm, Decatur
Robert Louis Garnett, Columbus
Fletcher O. Garrison, Cornelia
Thomas Albert Getman, Albany
Thomas Franklin Glass, Macon
Douglas Dennis Glover, Marietta
Barry Jay Goldsmith, Augusta
Julian R. Gomez, Atlanta
Woodrow Goss, Ashburn
Hamlin Graham, Augusta
Charles Chester Gullett, Atlanta
Faez Hakim, Albany
John Harold Hartley, Atlanta
Charles Haddock Hendry, Marietta
George Travie Henry, Barnesville
Jesse Drake Hester, Tifton
James Arthur Howard, Atlanta
Jerry Wayne Howington, Augusta
William Oliver Inman, Brunswick
Cecil F. Jacobs, Portal
Floyd James, Dalton
Walter Michael Jay, Augusta
C. Denton Johnson, Columbus
Mack Dana Jones, Albany
Shiraz H. Kassam, Augusta
Steve Z. Lintymer, Columbus
Ernesto Gonzales Lopez, Norcross
Raymondo T. Mallari, Fairburn
Sandra B. McCann, Columbus
James C. McCully, St. Simons Island
Harry H. McGee, Savannah
Earl T. McGhee, Dalton
Ray Lynes McKinney, Albany
Jason Lawrence Meadors, Valdosta
Charles Craig Mitchell, Augusta
Kevin J. Murrell, Augusta (I&R)
Dearing A. Nash, Savannah
Camran Nezhat, Atlanta
Sidney Olansky, Atlanta
Kumolo L. Parkongau, Conyers
Arvind M. Patel, Douglas
Franklin E. Payne, Augusta
Henry S. Pepin, Thomasville
James M. Perkins, Atlanta
Guerrant H. Perrow, Jasper
Harry Porter, Atlanta
Quentin Price, Dublin
Bill Purcell, Calhoun
John Brewton Rabun, Savannah
Jonathan E. Reimer, Augusta (I&R)
Louis F. Reynaud, Atlanta
Virginia M. Gould Reynaud, Atlanta
Ernst Murphy Ruder, Atlanta
Khalid Saeed, Elberton
Elio S. Sanchez, Rome
Mercer Brannon Sell, Augusta
Ivy Lee Shuman, Sylvania
William Edward Silver, Atlanta
Michael Coolidge Sims, Columbus
Henry Wilder Smith, Swainsboro
J. Graham Smith, Augusta
James Edward Smith, Dublin
Wentford A. Spears, Warner Robins
Cassius M. Stanley, Macon
Michael E. Stebler, Waycross
David G. Stroup, East Point
Wai Yun Syn, Tucker
Mark Alan Tanenbaum, Atlanta
Bipin D. Thakrar, Demorest
Donald Ray Thomas, Dalton
John Nathan Tripp, Macon
Howard George Vigrass, Columbus
Douglas Wade Wallace, Columbus
Francis M. Watson, Atlanta
Stephen Robert White, Statesboro
Stewart Earle Wiegand, Atlanta
Otis Jack Woodard, Albany

Non MAG Members

Donald Willis Alexander, Atlanta
Robert Dale Armstrong, Ft. Gordon
Louis Theresa Barbieri, Atlanta
James J. Bedrick, Clarkston
Gary Arnold Beetner, Augusta
Jerry S. Benzl, Stone Mountain
Carol Frances Boerner, Atlanta
Carl Richard Boyd, Savannah
Joseph Milton Brogdon, Uvalda
David Bryan, Tucker
John LeRoy Carter, Lilburn
Charles I. Caulton, Milledgeville
Frank Samuel Celestino, Columbus
Robert Raymond Currier, Nashville
Mark DeMason, Stone Mountain
William J. Degenhart, Savannah
Thomas Arthur Dillard, Hinesville
Titus DeWayne Duncan, Atlanta
Jeffrey Englehardt, Sr., Lumpkin
Nizami Vildan Erkan, Atlanta
Miguel Angel Faria, Atlanta
Joseph Bernard Floyd, Decatur
Lawrence Lee Freeman, Chamblee
Varon Alexander Garcias, Riverdale
Edward C. Gardner, Decatur
Winston Y. Godwin, Atlanta
Khalad Saeed Goheer, Norcross
Alan Lee Goldman, Roswell
William J. Gower, Atlanta
Mary Ann Tyler Hagler, Augusta
Luis Alberto Hernandez, Savannah
Grant W. Huntzinger, Ft. Ogelthorpe
Gail Cole Jackson, Augusta
Morris L. Jenkins, Calhoun
Robert Allen Johns, Atlanta
Michael Reese Johnson, Atlanta
Wayne Harry Kaesmeyer, Augusta
Rafik B. Kashlan, Riverdale
Nguyen Quoc Khoa, Waycross
Harvey Charles Lebos, Savannah
John D. Lenton, Tucker
Duncan Randall Marsh, Albany
Danl Grier Marshburn, Decatur
Robert E. McAlister, Atlanta
Michael Charles Mobley, Savannah
Lamar Houston Muree, Ashburn
Gregoire Emmanuel P. Neol, Atlanta

(Continued on p. 830)

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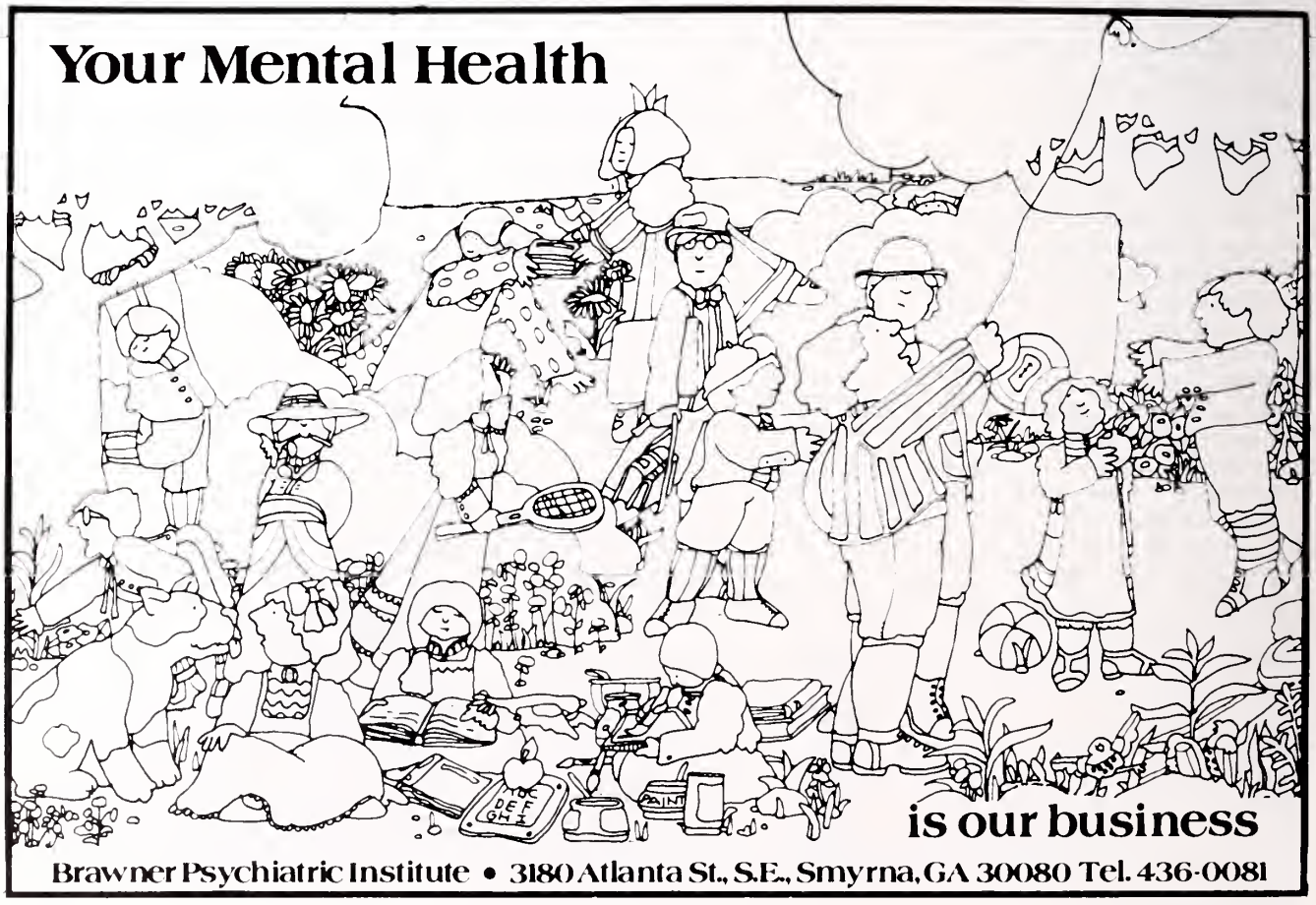
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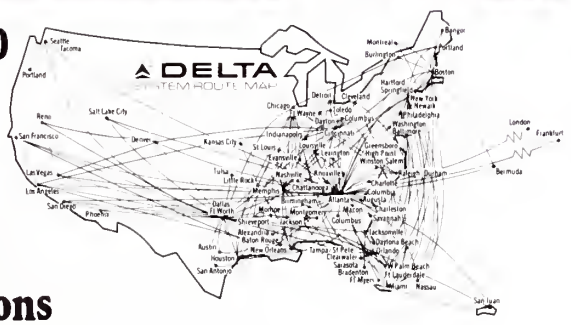


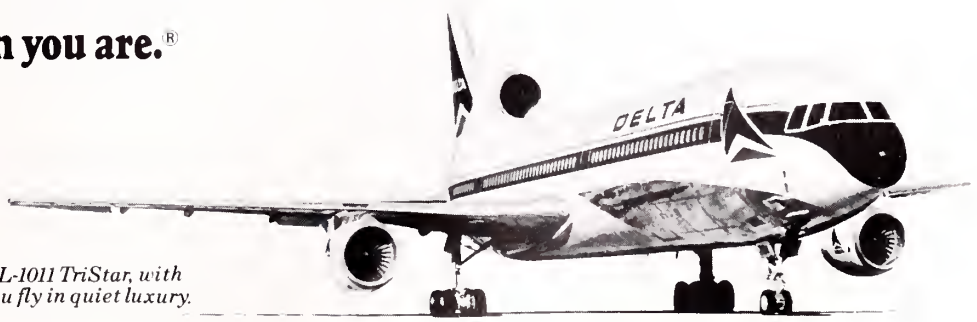
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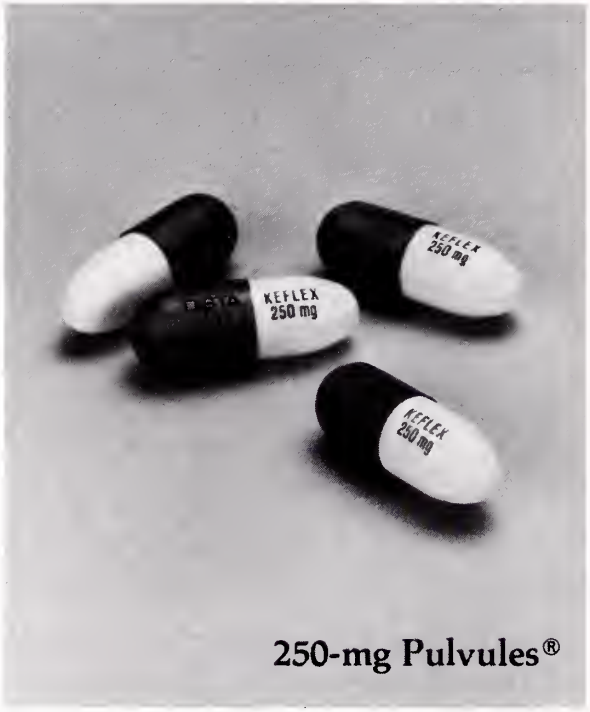
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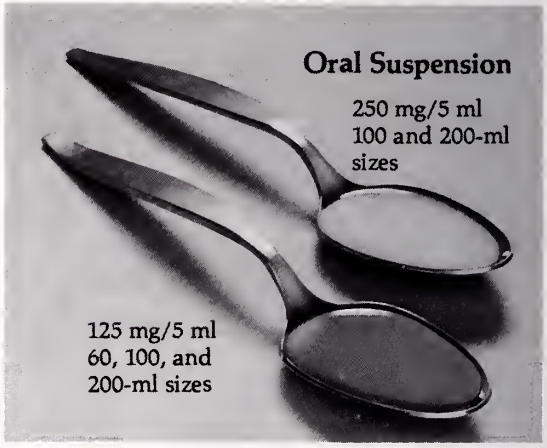


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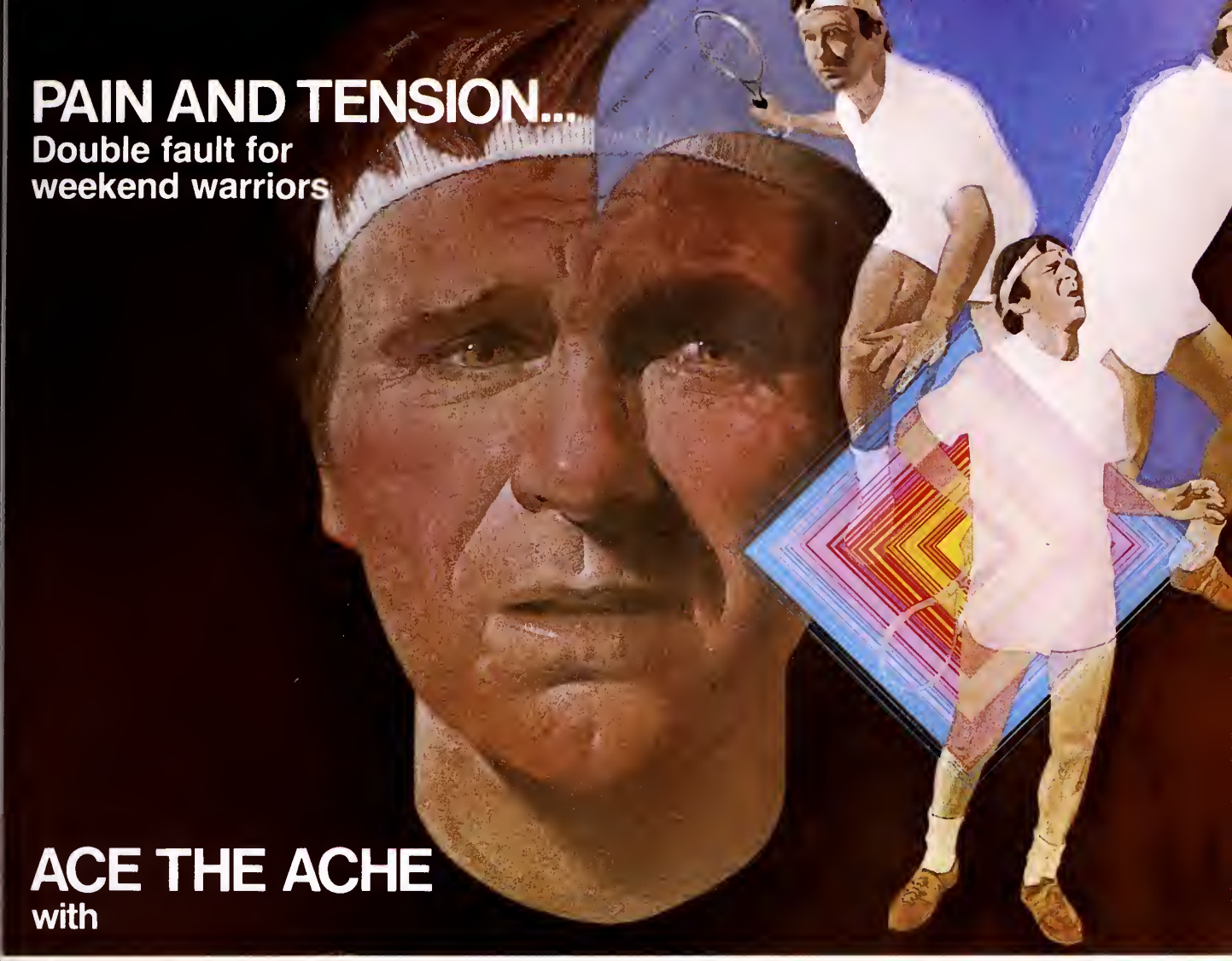
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Equagesic®(IV)

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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for mild to moderate pain

Wygesic®

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237 2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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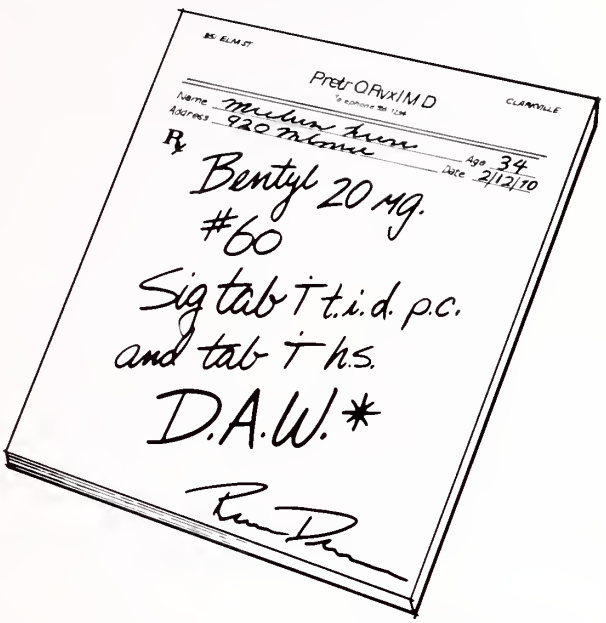
...in the functional bowel/irritable bowel syndrome*

be sure to specify

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(dicyclomine hydrochloride USP)

10 mg capsules, 20 mg tablets,
10 mg/5 ml syrup, 10 mg/ml injection



*D.A.W.-Dispense as written

because:

- The Bentyl molecule is a product of original Merrell research.
- At Merrell Dow, Bentyl must go through 140 checkpoints/tests from its synthesis through the packaging of the final product.
- Bentyl bioavailability of tablets, capsules, syrup and injectable is evidence of its prompt absorption.
- Bentyl helps control abnormal gastrointestinal motor activity with minimal anticholinergic side effects. (See Warnings, Contraindications, Precautions, and Adverse Reactions on next page.)
- The bioequivalence of the oral dosage forms permits a choice of tablet, capsules, or syrup that satisfies patient's dosage preferences.
- Significant pharmacologic effect in the distal colon compared to placebo,[1] shows how Bentyl controls abnormal motor activity in the irritable colon patient.*

*This drug has been classified "probably" effective for this indication.

Merrell Dow

Reference:
1. Chowdhury AR and Lorber SH: Personal communication, 1980.

(See Product Information on the next page before prescribing Bentyl.)

Although the dose of Bentyl used to show pharmacologic effect was 50 mg, which is a higher single dose than that permitted in the labeling, the dose was considered justified, since the recommended daily dose of injectable Bentyl is 20 mg (2 ml) every 4 to 6 hours. Thus, in 8 hours, a patient could receive a total of 60 mg I.M. and, at that time, as a result of the sustained plasma levels from the 20 mg injections at 0 and 4 hours, might show an even higher plasma level than occurs after a single 50 mg dose. Presumably, the same pharmacologic effect would follow. These observations do not constitute evidence of efficacy.

Bentyl®

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS

Based on a review of this drug by the National Academy of Sciences-National Research Council and or other information, FDA has classified the following indications as "probably" effective.

For the treatment of functional bowel irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup)

Final classification of the less-than-effective indications requires further investigation

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis), paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. There are rare reports of infants, 6 weeks of age and under, administered dicyclomine hydrochloride syrup, who have evidenced respiratory symptoms (breathing difficulty, shortness of breath, breathlessness, respiratory collapse, apnea), as well as seizures, syncope, asphyxia, pulse rate fluctuations, muscular hypotonia, and coma. The above symptoms have occurred within minutes of ingestion and lasted 20 to 30 minutes. The timing and nature of the reactions suggest that they were a consequence of local irritation and or aspiration rather than a direct pharmacologic effect. No known deaths or permanent adverse effects have been reported. Bentyl syrup should be used with caution in this age group.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy.

Use with caution in patients with:

- Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.
- Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.
- Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics: antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia, urinary hesitancy and retention, blurred vision and tachycardia, palpitations, mydriasis, cycloplegia, increased ocular tension, loss of taste, headache, nervousness, drowsiness, weakness, dizziness, insomnia, nausea, vomiting, impotence, suppression of lactation, constipation, bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations, some degree of mental confusion and or excitement, especially in elderly persons, and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.

Usual Dosage

Bentyl 10 mg capsule and syrup: *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children*: 1 capsule or teaspoonful syrup three or four times daily. *Infants*: ½ teaspoonful syrup three or four times daily. (Dilute with equal volume of water.)

Bentyl 20 mg: *Adults*: 1 tablet three or four times daily.

Bentyl Injection: *Adults*: 2 ml (20 mg.) every four to six hours intramuscularly only.

NOT FOR INTRAVENOUS USE

MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing. CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.

Product Information as of July, 1980

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Valley is a fully accredited private psychiatric hospital staffed by professionals with outstanding credentials in the field of mental health and emotional disorders.

The carefully coordinated team approach includes intensive individual and group psychotherapy, and expressive therapy for the patient whose condition requires evaluation and professional treatment.

Valley is a 100-bed private psychiatric hospital nestled in an 81-acre wooded area on the outskirts of Chattanooga, Tenn. Structured clinical programs include:

ADULT PSYCHIATRIC PROGRAM—Admission to the adult program at Valley involves diagnostic procedures such as complete physical examination, psychological testing, psychiatric evaluation and review of social history. Based upon results of these initial tests, the patient's attending psychiatrist together with members of the psychiatric treatment team develop a total treatment plan which may include group therapy in addition to individual therapy, occupational and recreational therapy as well as family involvement.

Weekly meetings of the treatment team are held to modify the original treatment plan based on the patient's progress while in the hospital.

CHILD AND ADOLESCENT PROGRAM—Valley maintains a child and adolescent program for youngsters undergoing specific difficulties in growth and development. This program provides individual as well as group therapy and includes activities in art, sports and field trips of special interest to this age group.

An active school experience is part of this program. Individual lesson plans, administered by special education teachers and worked out with the children's own school district educators, keep them from falling behind peers in their own community school. Because the student is allowed to move at his own pace in an individualized program, he develops confidence and self-discipline.

The Valley program regards adolescence as a psychological growth process—not a disease—so that time, skill and experience are critical ingredients of the treatment.

SUBSTANCE ABUSE PROGRAM—This treatment team is trained and experienced in the treatment of alcoholics and other drug-dependent persons.

A number of approaches are used in the treatment of alcoholism and/or drug abuse: individual and group therapy, substance abuse counseling, lectures, communication skills training, pastoral counseling, physical and recreational therapy, the 12 Steps of Alcoholics Anonymous, Antabuse therapy, and various forms of adjunctive therapy. Whenever possible, family members are urged to become involved in the patient's treatment through out-patient family and individual counseling.

REFERRAL—Valley maintains a 24-hour, seven-day-a-week emergency referral service. Referrals are accepted from psychiatrists and other physicians, the clergy, social workers, mental health professionals, social agencies, self and family.

Valley is fully accredited by the Joint Commission on the Accreditation of Hospitals.

Dr. Robert G. Aug, M.D., Medical Director

Dr. G. Michael Schmits, M.D., Medical Director of the Child and Adolescent Program

Dr. Kenneth E. Shoemaker, M.D., Medical Director of the Substance Abuse Program

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Ideal Partnership Available. Progressive pediatrician needs partner; large, growing 3-year-old practice. Beautiful city, 35,000 population near Atlanta. Send resume to Pediatric Health Center, 309 Vernon St., LaGrange, GA 30240, or call 404/882-6525, Aaron S. Goldberg, M.D.

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Board-certified internist interested in opportunity to join or buy active medical practice in Atlanta vicinity. Available January 1982. Interested in non-invasive cardiology work. Box 10-B, c/o *Journal*.

Internist, 25 years experience, wants to practice in hospital, institution, or group practice, Atlanta area. Bella Vitkin, M.D., 3601 Piedmont Rd., NE, Apt. 708, Atlanta, GA 30305; PH 404/237-3993.

Pathologist, certified AP-GP, retired, wishes locum tenens work. Weekends, vacations, meetings, or whenever. Write Box 11-A, c/o *Journal*.

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Western North Carolina, beautiful country estate listed in National Register of Historical Places. 4000 sq. ft. home completely restored and modernized. Two brick guest cottages. Caretaker home. Circular brick barn. 35 acres with several pastures, stream and pond. Additional acreage available. Ideal for practice/living or joint ownership arrangement. Magnificent setting near ski resorts. Price: $375,000. Call owner for brochure. (704) 758-2279, 758-2458 or 758-2930.

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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

NEWS NOTES — District and county medical societies, Association members, and readers are invited to send in any news items of general concern to members of the Medical Association of Georgia.

REPRINTS — Requests for reprints should be made directly to The Ovid Bell Press, Inc., 1201-05 Bluff Street, Fulton, Missouri 65251. Reprints must be ordered within 30 days after publication, since all type will be destroyed after that time.

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"When I saw a cripple, I'd stop stark still and walk across the street."

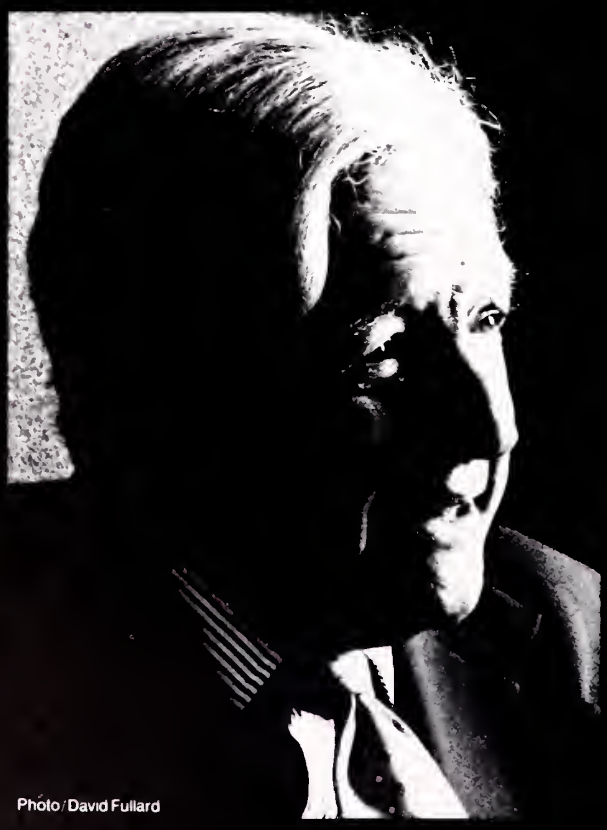


Photo / David Fullard

In explaining that reaction, Dr. Colter Rule, a practicing psychiatrist says, "I guess it was a mirror and I was unacceptable to myself."

Dr. Rule was disabled by polio as a child. At five he was sent to an institution that was hundreds of miles from his home. That year away—which he remembers as more like ten years—resulted in a permanent emotional severance from his family. "The way my family responded made me feel it would have been better if I hadn't been born. At the institution, I perfected a superficial charm to get attention and approval. But inside there was an enormous rage that stayed with me for years. As an example of my negativism, when members of my family stressed that it was lucky I could play the piano, since I couldn't dance, that was the last time I touched the piano.

"When I became a doctor I thought, now, I will be dealing with the sick and I won't have to deal with myself. That's why it took me such a long time to identify or get involved with the problems of the disabled."

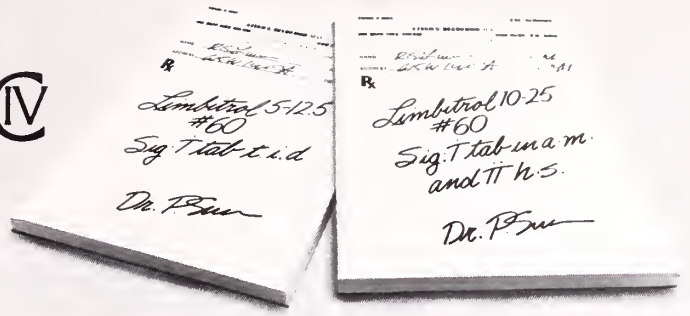
Dr. Colter Rule sums it up in these words today, "We must work and learn together. After all, an abused child can be more seriously disabled than someone who has difficulty with coordination. We must stop treating any disabled person as a loser and begin to build gateways for them through which they can join the rest of the world."

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Washington, D.C. 20210

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Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



In anxious depression,

SPECIFIC FOR THE NONPSYCHOTIC PATIENT

Fits the picture of anxiety/depression correlation

Most patients with a mood disorder have a mixture of anxiety and depression. One clinician[1] found a correlation of 0.7 in anxiety and depression scores; another[2] has estimated that 7 of 10 nonpsychotic depressed patients are also anxious. For the dual symptomatology of anxious depression, Limbitrol provides dual medication.

More appropriate for the nonpsychotic depressed and anxious patient

Limbitrol contains both amitriptyline, specific for symptoms of depression, and a benzodiazepine, specific for the symptoms of anxiety. Thus it is a better choice than other dual agents for anxious depression that contain a phenothiazine, a class of antipsychotic drugs less specific for anxiety and now generally avoided in nonpsychotic patients.[2,3]

Avoids the risk of tardive dyskinesia carried by the phenothiazine combinations

The causal relationship between the phenothiazines and other extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

References: 1. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970 **2.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME. New York, Appleton-Century-Crofts, 1977, p 316 **3.** Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p 999

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other. Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.

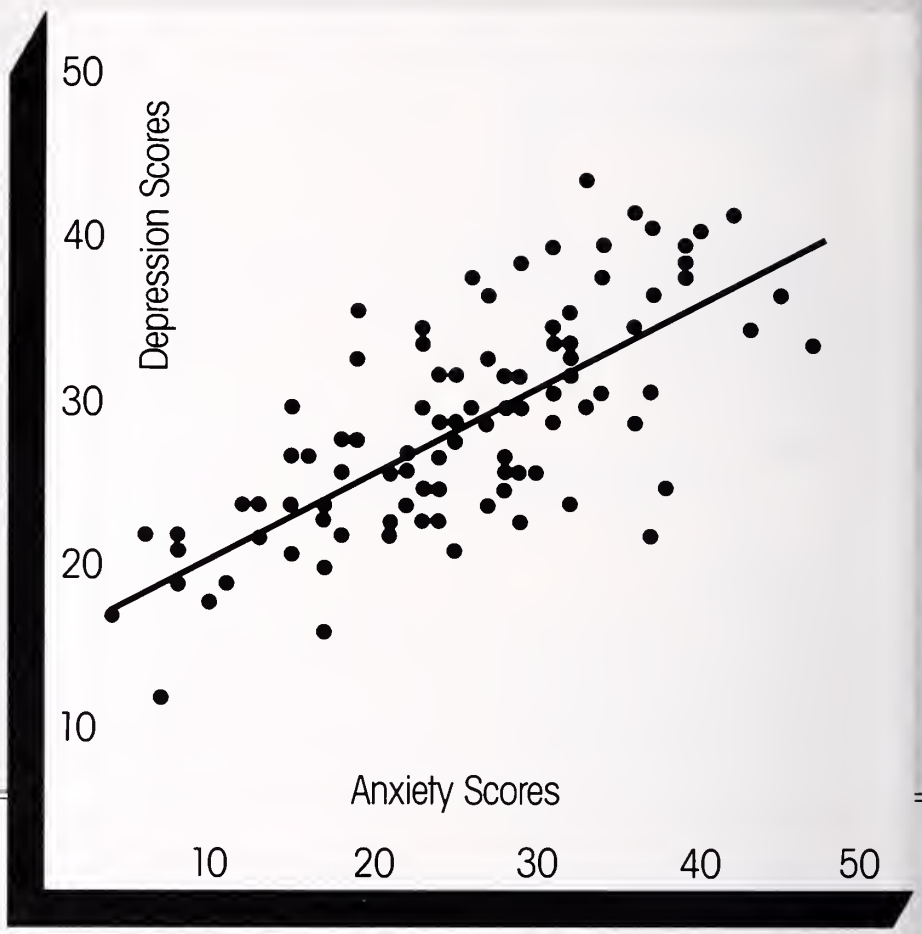
Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

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1. Clagharn J: *Psychosomatics 11*:438-441, Sept-Oct 1970

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- Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
- Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
- Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*

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NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

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As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

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Chronic Infections	500 mg q.i.d	100 mg/kg/day q.i.d
Otitis Media	250 mg to 500 mg q.i.d †	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults
†depending on severity

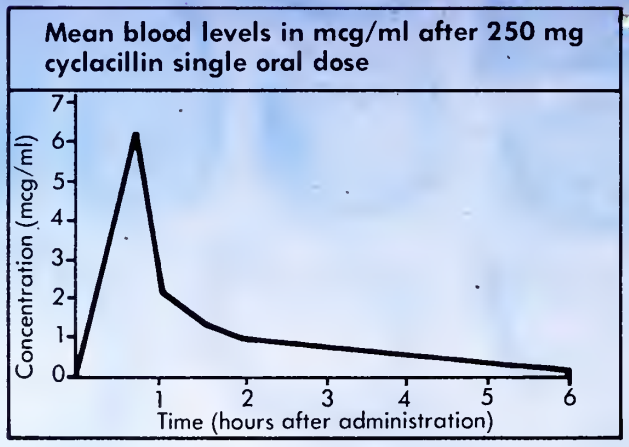
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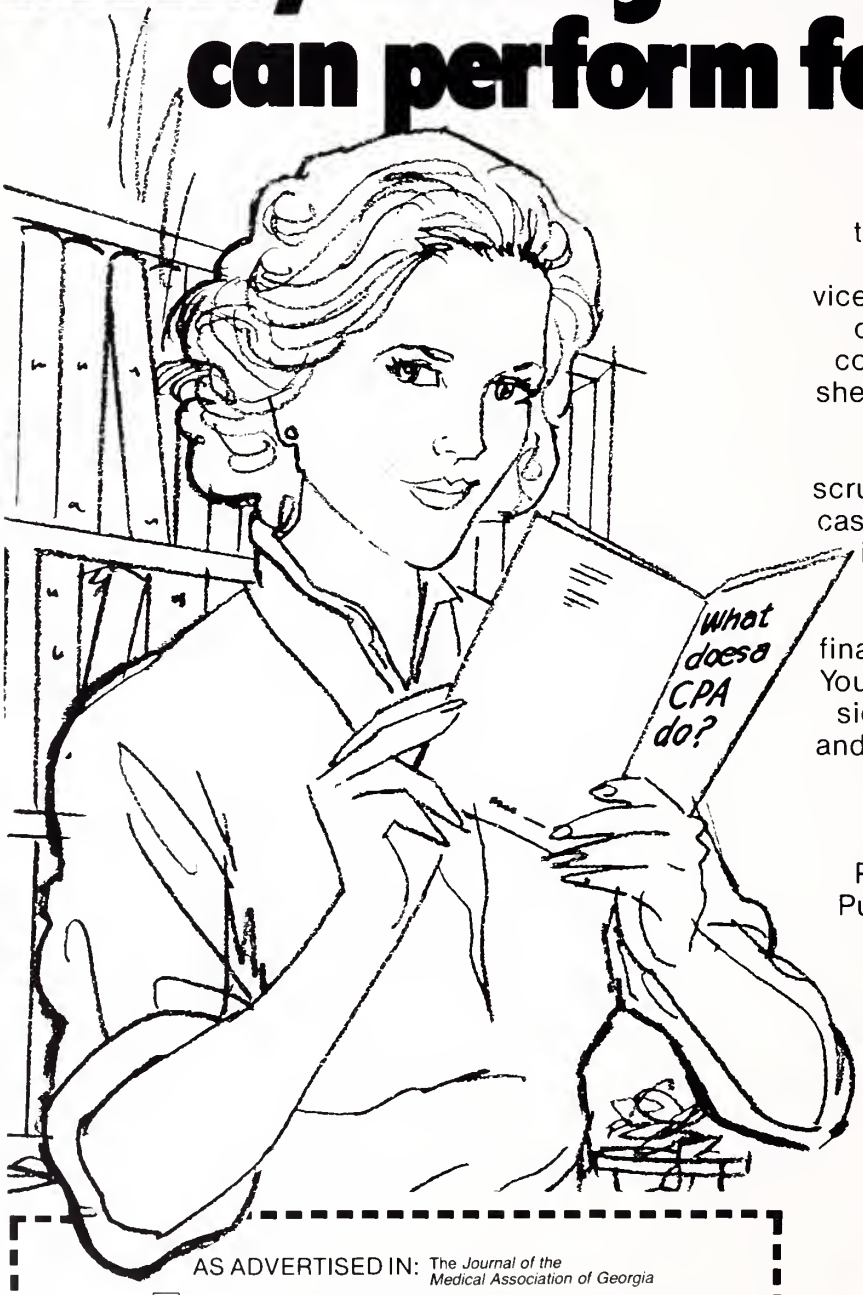
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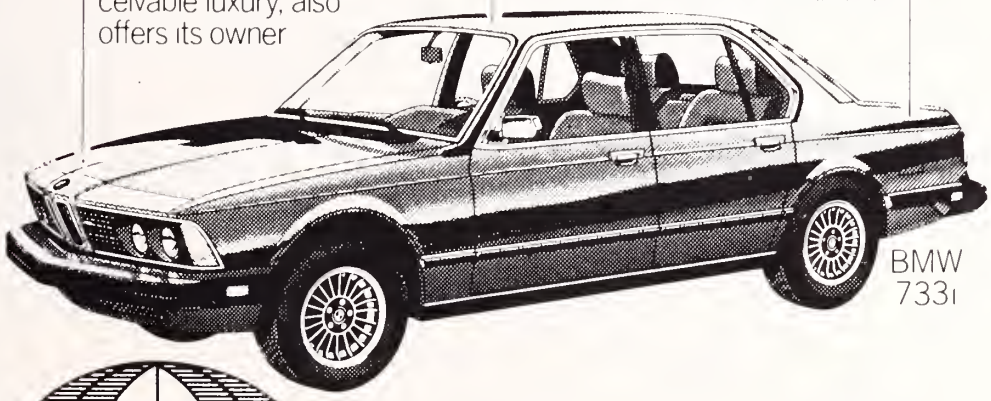
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Cover design by Richard Lyons of Richard Heiman Advertising, Inc.

Incidental Intelligence . . .

The Georgia Infant/Child Highway Program — Auxiliary to MAG Involved

Under the leadership of Mrs. Perry M. White (Katherine), president of the Auxiliary to the MAG, and her safety chairman, Mrs. Quentin R. Lawson (Joan), of Valdosta, the state auxiliary is participating in a project to assure child safety in the state.

At the request of Dr. William Weston, of Augusta, project chairman for the Georgia Infant/Child Highway Safety Program, the auxiliary is involved in a statewide clipping service of articles relating to injuries or deaths of children due to the lack of restraint devices in automobiles. These articles will serve as a data base for use by the Georgia Chapter of the American Academy of Pediatrics (AAP) in presenting information to the state legislature when it convenes in January, 1982.

According to Dr. David Morgan, Decatur, president of the Georgia Chapter of AAP, the aim of the pediatric organization is to implement educational and legislative plans for Georgia. The effort will not be of a punitive nature, he says, but will seek, among other things, to enlist the help of the State Patrol in warning parents of the dangers of riding with a small child unrestrained.

Additionally, the auxiliary, along with other women's groups, is assisting in developing programs to educate and persuade parents to obtain and use approved car seats for their young children. Already some communities have "Loan-a-Seat" projects based at hospitals to help carry out the campaign's slogan, "The First Ride, a Safe Ride." It is planned also to have bumper stickers carrying this message given to families of all new babies when they leave the hospital.

A seminar held last summer in Atlanta, sponsored by the Georgia Chapter of AAP, brought out the need for this type of legislation, which already is in effect in several other states.

According to Dr. Kenneth Roberts, associate chief of pediatrics at Sinai Hospital in Baltimore: "A quarter of the deaths of kids in this country are from automobiles.



Dr. David Morgan, president of the Georgia Chapter of the American Academy of Pediatrics, demonstrates an approved child restraint seat to Mrs. Pauline Torres and her young daughter, Allison, of Atlanta.

Children are very vulnerable in cars and can die or sustain injuries without an actual crash occurring. It can take only a sudden stop or swerve off the road to throw a child against the windshield or dashboard."

The Insurance Institute for Highway Safety, in a booklet entitled "Children in Crashes," says: "Every year in the United States, more than 1,400 children under 13 years old die and thousands more are injured as motor vehicle passengers. . . . More than 90% of children in the United States currently ride in motor vehicles without the protection of car seat belts or child restraint systems."

It is the goal of the medical auxiliary to enhance community awareness of the problem by gaining the endorsement and help of other advocacy groups, such as hospital auxiliaries, the Junior League, the P.T.A., Pilot Clubs, etc.

(Reported by Mrs. Brit B. Gay, Jr., (Evelyn), Auxiliary to MAG)

Physician Reminder — Important Clarification

This note clarifies relationships between health departments in Georgia and Federal resources. Many health care providers in Georgia have expressed uncertainty about knowing when to contact their local health department, the Office of Epidemiology, and the Centers for Disease Control (CDC).

In Georgia, local health departments, District Health Units, and the Office of Epidemiology (Division of Public Health) have a primary responsibility for disease control. However, confusion often arises because the CDC, an agency of the U. S. Public Health Service, is physically located in Atlanta. Because of this physical relationship, the public, physicians, and other health care providers sometimes inadvertently contact CDC first concerning health problems in Georgia; many of these inquiries must subsequently be referred directly to the appropriate local and state offices.

Therefore, health care providers are reminded that most problems concerning disease control in Georgia should be communicated directly to their local health departments (who then may contact the Office of Epidemiology). Moreover, those laboratory specimens that need to be sent to CDC from hospitals and private physicians should be cleared through appropriate state personnel. The Office of Epidemiology maintains a 24-hour telephone number for information concerning management of rabies exposures and contact numbers for other disease control problems (404-656-4764).

(Reported by the Georgia Epidemiology Report, DHR, Sept. 1981.)

Letters to the Editor . . .

"Legal Page" Position Debated

Dear Sir:

The October, 1981, issue of the *Journal* contains an article by Robert N. Berg entitled, "The Right to Maintain an Action for the Death of an Unborn Baby: Statutory Interpretation, Judicial Policy-Making, and a Georgia Solution." Mr. Berg maintains that the courts in Georgia "have taken a novel and well-reasoned approach to the question of whether or not a wrongful death action can be maintained for the death of an unborn baby." I would take issue with Mr. Berg's point of view that the concept of quickening represents a reasonable and useful means of establishing legal decisions. Regardless of what Georgia courts may have decided, the question of whether or not a fetus is "quick" is not a factual question and the answer is not "relatively easy to ascertain."

The problem with quickening as a marker is that it depends upon the uncorroborated testimony of a biased witness and is not in fact based upon any biologic determinant or objective measure. From time to time we see patients who deliver full-term healthy babies but deny ever having perceived fetal movements. On the other hand, a woman with pseudocyesis may stoutly maintain that fetal movements are occurring regularly when in fact no fetus exists within her body. From the point of view of a biologist, as soon as the first striated muscle fiber or cardiac muscle fiber exists, it must contract and relax or atrophy, so the presence of muscular contraction is much earlier than any possible perception of it by the mother.

Objective scientific evidence of fetal movement (i.e. cardiac action) can sometimes be determined by means of real time ultrasonography at the seventh or eighth week after the last menstrual period. The presence of fetal cardiac activity can sometimes be confirmed utilizing a Doppler instrument by 10 or 11 weeks after the last menstrual period. A fetus which has been born by the end of the twelfth week following the last menstrual period may have spontaneous movements if it is observed carefully. Quickening, on the other hand, is often not perceived until 16 or so weeks after the last menstrual period, according to Hellman and Pritchard's 14th Edition of Williams' *Obstetrics*.

If English common law indicates that life "begins in contemplation of law as soon as an infant is able to stir in the mother's womb" (Mr. Berg's quotation from Blackstone's Commentaries), then the question of when the fetus stirs and when the mother perceives that stirring are two entirely different and separate questions. I submit that the decision of the Georgia courts as described in Mr. Berg's article simply muddies the water and makes the role of the attorney and the physician more difficult.

My thanks to you, to the *Journal*, and to Mr. Berg for bringing this issue to our attention.

Sincerely,
Malcolm G. Freeman, M.D., FACOG
Dept. of Gynecology & Obstetrics
Emory University School of Medicine

Tribute Requested for Deceased MAG Member

Dear Sir:

With regret I read about the untimely passing of one of our members, Dr. Michel Glucksman of Brunswick, Georgia. I noted that his total obituary was 15 lines long. This brief epilogue for a man who gave unselfishly to the organization is certainly not enough. I might suggest that those who knew him better write about him, and perhaps include his picture.

From my distant place in Muscogee County, I believe Dr. Glucksman's contributions to our state meetings as well as to the Georgia Medical Care Foundation were notable. I know the Executive Board has made plaques, but that shouldn't replace the *Journal's* recognition of him.

Yours truly,
Marvyn D. Cohen, M.D.
Columbus

"Doctor-Nurse-Patient — An Eternal Triangle"

Dear Sir:

I read with interest your perceptive editorial titled "Doctor-Nurse-Patient — An Eternal Triangle" published in the September, 1981, issue of the *Journal*.

It is so seldom that statements such as yours come to my attention that I felt compelled to respond. Obviously, a statement such as this in one small journal will not command the attention or change the perceptions of a majority of physicians. However, undoubtedly it will raise the consciousness of some and that in itself is a hopeful signal. The sooner physicians realize that nurses believe the patient or client is their *first* concern and that they are accountable to the patient, the sooner the doctor-nurse relationship can become one of greater satisfaction for all involved.

I hope your editorial will encourage other physicians to respond in like manner and further to work sincerely at restructuring their relationships with nurses where such is indicated. Thank you again for a most sensitive article.

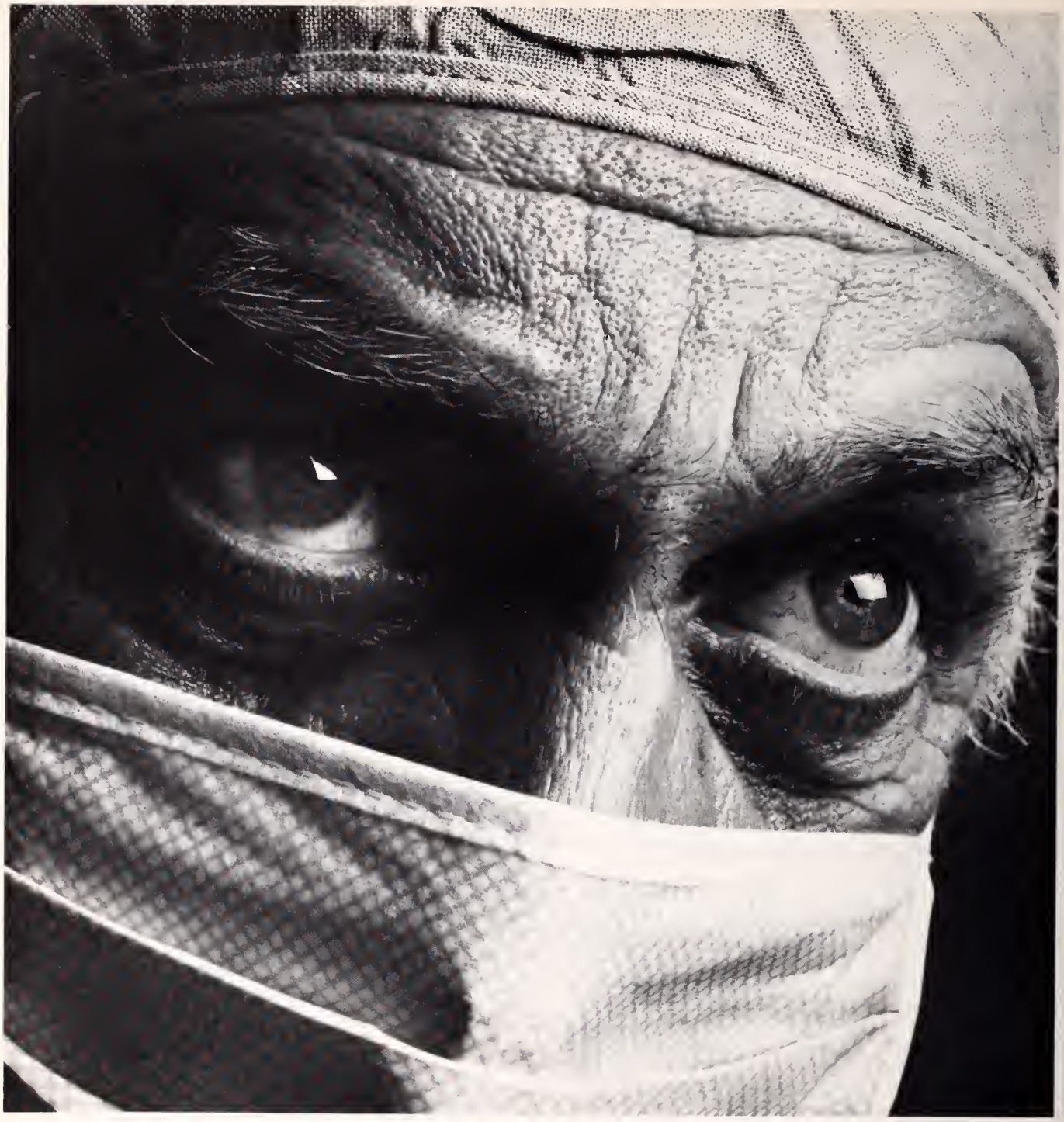
Sincerely,
Mary E. Conway, Ph.D.
Dean and Professor
School of Nursing
Medical College of Georgia
Augusta

A Rose Is a Rose Is a Rose

Dear Sir:

I read with interest the article entitled "An Old Medical Specialty Puts on a New Face . . . and Head . . . and Neck" by Drs. Silver and Anderson in the October issue of the *Journal*. After being educated concerning the scope of today's head and neck surgeon, the diversity of the questions on their certifying examinations, and the changing of the Board's name to the American Board of Head and Neck Medicine and Surgery, I was amused to notice at the bottom of page 723 that Drs. Silver and Anderson still practice "otolaryngology."

Sincerely,
George H. Nelson, Ph.D., M.D.
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Dept. of Ob/Gyn
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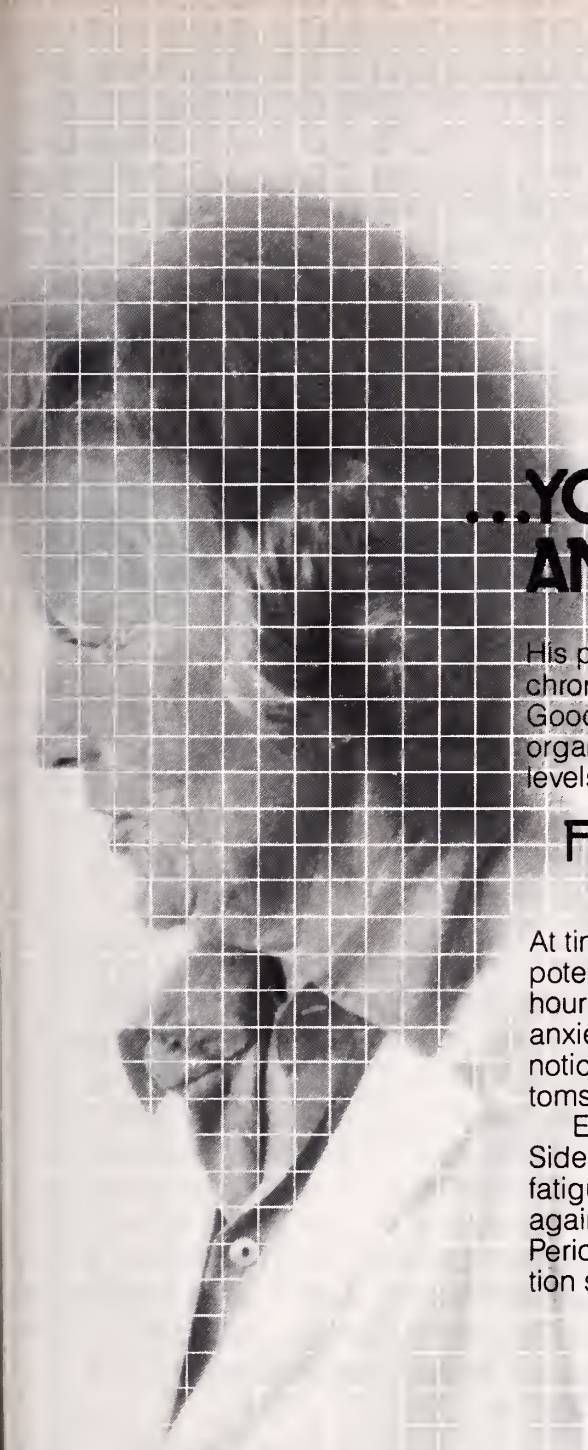
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Carpal Tunnel Syndrome — A Disabling Yet Treatable Condition

LAWRENCE B. SCHLACHTER, M.D., and GEORGE T. TINDALL, M.D., *Atlanta**

CARPAL TUNNEL SYNDROME is due to compression of the median nerve in the carpal tunnel and is a frequent cause of disabling pain and paresthesias in the hand. The syndrome occurs more commonly than is generally realized, characteristically causes nocturnal symptoms, and can be cured.

The syndrome is characterized by sensory, motor, and/or trophic changes in the hand. These abnormalities are the result of irritation or compression of the median nerve at the wrist. Early recognition of the syndrome is important to prevent motor weakness and irreversible atrophy. The purpose of this paper is to review the clinical and electrophysiologic features that facilitate early diagnosis and to present therapeutic options.

Historical Background

Paget[1] in 1865 first described the delayed appearance of median nerve dysfunction following a fractured wrist. In 1912, Marie and Foix[2] suggested sectioning of the transverse carpal ligament as a method of treating thenar atrophy. Brain et al.[3] coined the term carpal tunnel syndrome in 1947 while treating a group of patients with spontaneous episodic "pins and needles" sensations affecting the hands. These so-called "acroparesthesias" have long been recognized as occurring without motor or sensory loss. In 1959, it was first suggested[4] that acroparesthesia might be due to median nerve compression in the carpal tunnel. Kremer[5] confirmed this impression when he reported relief in 37 of 40 patients with acroparesthesias after surgical sectioning of the transverse carpal ligament.

Anatomy of the Carpal Tunnel

The anatomic relationships of the wrist are important in understanding the vulnerability of the median nerve to compression. The median nerve traverses a bony and ligamentous tunnel at the wrist as it passes to supply the hand (Figure 1). On the ulnar side, this tunnel is formed by the palmar surfaces of the pisiform bone and the hook of the hamate bone, and on the radial side by the tuberosity of the scaphoid bone and the crest of the trapezium. The lunate and capitate bones form the floor. The overlying, relatively inelastic transverse carpal ligament converts this canal into a tunnel through which pass the flexor tendons to the fingers and the median nerve. If the volume of the tunnel contents is increased or if the bony canal is distorted, then the median nerve may become compressed.

A review of the clinical and electrophysiologic features to facilitate early diagnosis and a description of the therapeutic options.

Distal to the carpal tunnel, the median nerve supplies a motor branch to the thenar muscles which innervates the abductor pollicis brevis, flexor pollicis brevis, and opponens pollicis muscles. Motor

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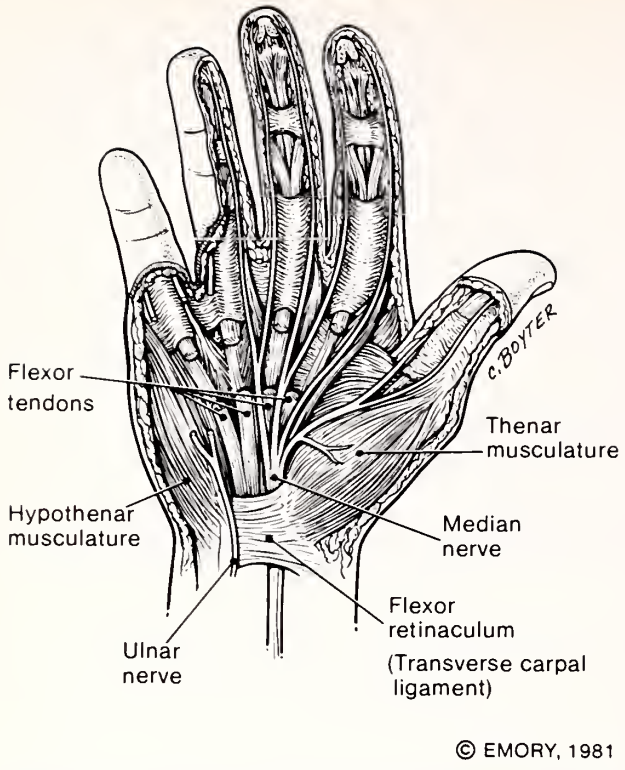


Figure 1 — Median nerve as it passes through the carpal tunnel under the flexor retinaculum to supply the hand.

branches also supply the lateral head of the adductor pollicis and the lumbrical muscles of the index and middle fingers. The sensory distribution of the median nerve includes the palmar aspect of the thumb, index, middle, and radial half of the ring fingers. The dorsal aspect of these same fingers beyond the distal interphalangeal joints are also supplied by sensory fibers of the median nerve, but in this area there is often overlap with sensory fibers from the radial nerve.

Pathophysiology

Although it was discovered that the anatomic lesion responsible for some forms of thenar wasting was focal demyelination of the median nerve underneath the transverse carpal ligament,[2] it was not until 1963 that the median nerve distal to the demyelinated segment was observed to be myelinated.[6]

It was thought that the histologic changes of acute nerve compression, e.g., the infolded and stretched paranodal myelin with dislocation of the nodes of Ranvier in relation to the compressed zone,[7] would be found in the median nerve compression of carpal tunnel syndrome. Other changes were observed, however.[8] Along stretches of up to 20 mm. or more, proximal to the wrist, myelin segments were deformed, resembling tadpoles, being bulbous at one end and tapered at the other. The abnormal segments were consistently polarized, the bulb pointing away from the wrist. These histologic changes eventually result in permanent demyelination. Sunderland[9] believes that chronic venous congestion caused by nerve compression results in altered nutrition and hypoxia resulting in increased perineural and endoneural connective tissue. Thus, the controversy exists between theories of mechanical compression[10, 11] versus vascular insufficiency to explain the changes in the median nerve.

Clinical Findings

Initially, the majority of patients with carpal tunnel syndrome present with complaints of numbness, tingling, and/or burning in the hand that may involve all or only a portion of the distribution of the median nerve. In approximately 80% of the patients with this condition, night pain is the presenting complaint. On awakening, the pain may be diminished by shaking or massaging the wrists and hand. The syndrome is more common in women. Quite often, the condition is bilateral but is usually worse in the dominant hand. Although pain is primarily experienced in the hand, a few patients experience pain in the ipsilateral forearm and shoulder.[12]

Physical findings may be few or nonexistent early in the course of the disorder. Later, there may be tenderness to compression of the median nerve at the wrist. Tapping the median nerve at this site frequently results in paresthesia in the hand (''Tinel's sign''). Flexion of the wrist has been shown to cause an exacerbation of symptoms in many patients,[2] as does the application of a sphygmomanometer wrapped about the upper arm and inflated to a pressure in excess of the patient's systolic blood pressure. As the disorder becomes more severe, sensory loss may be demonstrated in the distribution of the median nerve in the hand. There may be weakness and/or atrophy of the muscles of the thenar eminence.

Evaluation of muscle strength is important, as it is possible to confuse weakness associated with median nerve dysfunction with that resulting from ulnar nerve abnormality. The most reliable test of median nerve function is to evaluate the abductor pollicis brevis muscle. In this test, the patient places his hand in the anatomic position with the thumb anterior to the palmar base of the index finger. The thumb is then moved further anteriorly against resistance, with the base of the first metacarpal as the radius for movement. Its strength is best judged by comparing it with the opposite hand.

Anatomic variation may complicate evaluation of the motor power of the muscles of the thenar eminence, since the opponens pollicis and the flexor pollicis brevis may be innervated by the ulnar nerve (Table 1).[13] This cross innervation, which occurs in 15-20% of the population, enlarges the distribution

of the ulnar nerve and is referred to as the Martin-Gubler anastamosis.[14]

Another anatomic variation that occurs in 10% of the population is a median artery which when compressed results in ischemia of the median nerve, thus resulting in symptoms which mimic direct nerve compression. Other anatomic variations of the tendons and muscles may also cause compression of the median nerve in the elbow and wrist areas. Conditions that should be considered in the differential diagnosis of carpal tunnel syndrome are listed in Table 2.

Electrodiagnosis

Motor and sensory conduction studies are useful in diagnosing this syndrome. Delayed propagation of compound action potentials across the transverse carpal ligament is the usual finding. The period of time required for conduction of a nerve impulse across a given segment of nerve and the neuromuscular junction is constant and is known as the distal latency. In one type of sensory conduction study, the recording electrode is placed around the index finger, and the median nerve is stimulated at the wrist. In motor conduction studies, the active electrode is placed over the mid-point of the abductor pollicis brevis muscle. Stimulation is then performed 8 cm proximal to the active electrode. Any sensory distal latency greater than 4.4 msec should be considered prolonged and strongly suggestive of carpal tunnel syndrome. Kopell and Goodgold[15] found that 95% of their patients with this syndrome had abnormal sensory latencies, and 84% had abnormal motor latencies. According to most authorities,[16] sensory latency studies are the most sensitive indicator of the syndrome. Motor latency abnormalities usually develop later in the course of nerve compression. It is important to perform nerve conduction studies on the ulnar nerve ipsilateral to the abnormal median study. Occasionally, this condition indicates the presence of a generalized polyneuropathy such as diabetic neuropathy.

Electromyography (EMG) of the thenar muscles is less reliable than nerve conduction studies. The EMG detects nerve dysfunction by recording changes in the muscles which occur secondary to nerve damage. The findings of (1) the loss of motor units, (2) the presence of spontaneous fibrillations, and (3) the presence of polyphasic potentials are indicative of motor nerve damage. It is possible to find these abnormalities before muscular atrophy occurs, but they usually occur after motor distal latency is prolonged.

Conditions Associated With Carpal Tunnel Syndrome

There are many pathologic states that may result in compression of the median nerve within the carpal

TABLE 1 — Innervation of the Muscles of the Thenar Eminence in 226 Patients[11]

Muscle	*Expected Innervation*	*Innervation*			*Per Cent Abnormal*
		Median	*Ulnar*	*Median-ulnar*	
Abductor pollicis brevis	Median	215	6	5	4.9
Opponens pollicis	Median	189	20	17	16.4
Flexor pollicis brevis	Median-ulnar	81	107	38	83.2
Adductor pollicis	Ulnar	5	219	1	2.7

TABLE 2 — Differential Diagnosis of Carpal Tunnel Syndrome

Condition	*Symptoms*
Ruptured cervical disk Spondylosis of the cervical spine	Neck, shoulder, and arm pain; radicular motor, sensory, or reflex loss; pain exacerbated with cough, sneeze, or compression
Thoracic outlet syndrome	Neck, shoulder, arm, and hand pain; usually ulnar nerve paresthesias; unilateral Reynaud's phenomenon; positive Adson's test
Shoulder injury Bursitis Capsulitis Tendinitis	Neck, shoulder, and arm pain
Osteoarthritis	Pain with use and relief with rest; involves distal phalanges
Rheumatoid arthritis	Involves proximal phalanges and carpal-metacarpal joints; involves multiple other joints
Shoulder-hand syndrome	Seen after myocardial infarction; atrophy of cutaneous and subcutaneous structures; pain in shoulder and arm with vasomotor changes
Reynaud's phenomenon	Benign symmetric disorder; pain and paresthesias in ischemic phase; usually associated with a collagen-vascular disease

tunnel. Occasionally, carpal tunnel syndrome may be the presenting complaint of a more generalized systemic disease (Table 3). In the great majority of patients, however, the onset of the syndrome is spontaneous and not related to any identifiable etiologic agent.

Treatment

Conservative treatment of carpal tunnel syndrome generally provides only temporary improvement in symptoms. Immobilization of the wrist by splinting in the mid-position of dorsiflexion may be of benefit and will aid in the diagnosis in instances where nerve conduction studies are not readily available. The splints are most useful at night in preventing pain. Symptoms usually worsen, however, once the splints are discontinued.

Pharmacologic therapy consists of injecting hydrocortisone into the carpal tunnel and using diuretics. We do not recommend the use of steroid injections, because either the introduction of material into a tight carpal tunnel or direct trauma to the nerve by the needle can enhance median nerve damage. Studies[17] comparing steroid injection with surgical decompression of the nerve have shown that mild cases treated with betamethasone obtained relief of burning night pain. Distal motor latencies, however, improved much more after surgery than after medical management. Motor latency returned to normal in 70% of the patients after surgery, and of 53 patients, not one had a distal motor latency greater than 5.5 msec 6 months postoperatively.

Endocrine replacement has been successful in patients with myxedema. For instance, long-term thyroid replacement in individuals with myxedema may reverse the symptoms of median nerve compression. Also, estrogen administration in postmenopausal women may reduce the growth of connective tissue and relieve compression.[18] The danger inherent in all therapy involving endocrine manipulation is that the response time is long, and irreversible changes in motor function may occur before a reversal occurs in the pathologic process.

Surgical decompression of the carpal tunnel has gained wide acceptance as a reliable means of treating this syndrome.[19] Operative indications include: (1) atrophy or weakness of thenar muscles; (2) severe pain and/or paresthesias in the distribution of the median nerve refractory to conservative therapy; and (3) sensory loss in the median distribution.

Of the several incisions described, most surgeons prefer an S-shaped incision across the wrist, because it follows natural skin creases (Figure 2) and allows for good exposure and recognition of anatomic variations, such as accessory or aberrant branches of the motor branch of the median nerve.

The surgery can usually be performed with local anesthesia on an outpatient basis. After incising the

TABLE 3 — Causes of Carpal Tunnel Syndrome (CTS)

A. Reduction of the Capacity of the Bony Canal
 1. Tightness of the flexor retinaculum
 a. Non-specific thickening of the transverse carpal ligament in familial CTS
 b. Acromegaly — CTS correlates well with active disease in acromegaly (35% have CTS); improvement of CTS in acromegaly does not correlate well with improved growth hormone levels
 2. Malalignment or callus associated with fractures involving the radius or carpal bones
 3. Pseudogout — calcified fibrocartilage with deposition of periarticular calcium pyrophosphate dihydrate and hydroxyappetite crystals
 4. Cast compression
 5. Compressive trauma
B. Excessive Volume of Contents
 1. Tenosynovitis
 2. Arthritis — rheumatoid type may cause wrist pain, deformity, and weakness; 49% of those with rheumatoid arthritis have abnormal electrodiagnostic studies; 20% have symptoms of median neuropathy
 3. Synovial ganglia
 4. Amyloid diseases
 5. Mucolipidoses — nerve compression occurs because of thickened synovium and transverse carpal ligament; associated with claw hands, joint stiffness, and aortic valve disease
 6. Scar formation after injury
 7. Tuberculosis, systemic lupus erythematosus, diabetes, Cushing's disease, myxedema, and syphilitic arteritis cause infiltration of tissues with subsequent compression of the median nerve. Includes disease states that cause generalized neuropathy.
 8. Tumors
 a. Fibromas of the nerve sheath
 b. Intraneural lipoma
 c. Lipomatous hemartoma
 9. Ischemia
 10. Hemorrhage
C. Other Conditions Associated With Nerve Compression
 1. Obesity
 2. Pregnancy
 3. Menopause
 4. Hemodialysis
 5. Infiltration of medication or fluids
 6. Generalized neuropathy

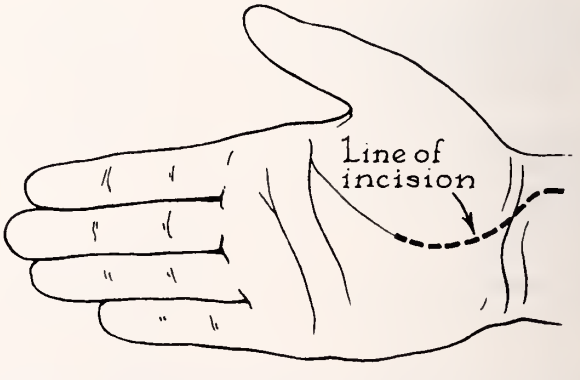


Figure 2 — S-shaped line of incision following natural skin creases.

skin and subcutaneous tissue, the transverse carpal ligament is incised and sectioned. The median nerve is usually swollen, reddened, and tightly compressed below the transverse carpal ligament. After the nerve is decompressed, the wound is closed with interrupted vertical mattress nylon sutures. Sutures are removed in 2-3 weeks.

At the Emory University Medical Center, we treated 250 patients with carpal tunnel syndrome in the past 5 years, with pain relief obtained in greater than 90% of cases. Two wound infections occurred that resolved without serious sequelae.

In carefully selected cases, excellent results can be obtained to relieve patients of this uncomfortable and painful condition and to prevent the development of irreversible neuromuscular changes in the hands.

Summary

Principles in the recognition, diagnosis, and treatment of carpal tunnel syndrome have been presented. The alert practitioner will recognize carpal tunnel syndrome as being both a symptom of multiple systemic diseases and an entity in itself. The techniques of physical and electrodiagnosis as well as pathophysiology and treatment were discussed.

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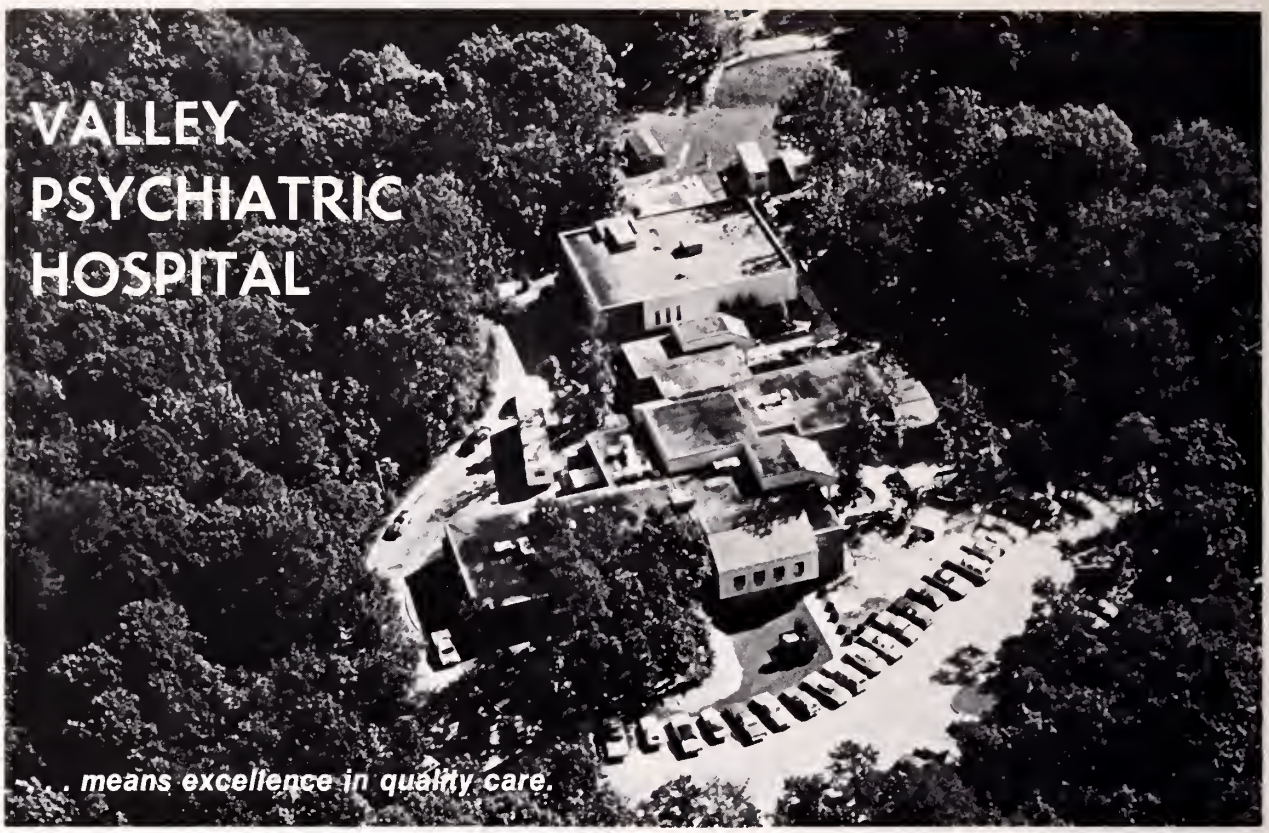
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INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, past nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings)

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DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED

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Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

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INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold

CONTRAINDICATIONS Hypersensitivity to antihistamines Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated

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WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming Ru-Tuss Expectorant may cause drowsiness Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease Caution should also be used in patients with pulmonary, hepatic or renal insufficiency

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period

Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period Children 2 to 6 years of age ½ teaspoontul every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as directed by a physician

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Studies show that information on hospital records and birth certificates frequently do not coincide, and the authors suggest solutions to this problem.

The Status of Birth Certificate Information in Georgia

LOUISE FLOYD, M.N., MICHAEL LAVOIE, M.A., *and*
JULES S. TERRY, M.D., M.P.H., *Atlanta**

Introduction

In times of austerity, careful health care planning assumes a more critical importance. Data sources regarding Georgia's health care needs also become more important. Not only do such data provide us direction regarding the expenditure of health care dollars, they also help us determine the impact our programs have had in alleviating the problems for which they were appropriated.

In Maternal Child Health, the single most important data source for information regarding perinatal events is the birth certificate. It provides standardized information which can be quickly retrieved and easily computerized. In addition, it can be linked with other information sources of data on mothers and infants (i.e., Women-Infant-Children [WIC] Program, Medicaid, High Risk Pregnancy Program, etc.). Such links are already established between Georgia's Vital Records System and other key health programs serving mothers and infants. Experience has shown, however, that many birth certificates are incomplete or inaccurate to the extent that their credibility is questionable. In an effort to establish the reliability of birth certificate data, the Georgia Department of Human Resources (DHR) undertook an investigation to determine the degree to which information recorded on birth certificates matched information in the hospital clinical record.

Similar efforts have been undertaken in other states. For example, in New York, Lilienfeld et al.[1] examined the accuracy of supplemental medical items asked on birth certificates. The investigators compared birth certificates with corresponding hospital charts and found that some medically related items asked on the birth certificate were continuously underreported. That is, the information was in the clinical record, but not on the birth certificate.[2] Similar findings have been reported by other investigators.[3-5]

Methodology

The economy of time, money, and personnel dictated that a limited comparison of birth certificate and hospital chart data be conducted. Four hospitals were selected based upon the number of annual deliveries, public or private payment of medical costs, and geographic location. Birth certificates were selected from calendar year 1979, in which there were 89,585 live births.[6] An initial sample of 500 was randomly selected for the four hospitals based upon a percentage of each hospital's total annual deliveries.[7] Several teams were formed consisting of physicians and master's level nurses from the Family Health Services Section and Primary Care Section of the Division of Public Health. The teams abstracted new birth records using hospital charts of the infants and mothers named on the sampled birth certificates. The data shown on the original birth certificate and the corresponding abstracted birth record were then compared, using seven codes.

Code 1: Agreement between birth certificate and hospital chart.
Code 2: Disagreement between birth certificate and hospital chart.

* Ms. Floyd is Maternal Child Health Projects Coordinator, Mr. Lavoie is Director, Vital Records Unit, and Dr. Terry is Director, Family Health Services Section, Georgia Department of Human Resources. Direct reprint requests to Ms. Floyd at 47 Trinity Ave., SW, Room 519-H, Atlanta, GA 30334.

Code 3: Recorded on birth certificate but not on abstract.
Code 4: Recorded on abstract but not on birth certificate.
Code 5: Multiple entries on abstract, one agrees with birth certificate.
Code 6: Multiple entries on abstract, none agrees with birth certificate.
Code 7: Unknown (keypuncher unable to interpret data card).

No attempt was made to assign "correctness" to either the birth certificate or the hospital chart data or to establish ranges of agreement (e.g., if the birth certificate recorded four prenatal visits and the hospital chart indicated five visits, code 2 was assigned). The data were coded and entered into a UNIVAC 1100 series computer for analysis.

Analysis

Two basic analyses of the sample were done. First, a simple cross-tabulation of the 403 matched records was completed. Twenty-four demographic and medically related items on the original birth certificate were compared with those abstracted from hospital records by using the agreement codes listed above. Table 1 shows the percents and agreement numbers of the comparison set.

The second analysis of hospital-specific, birth certificate completion percents was computed for selected items to determine if a problem was specific to the hospitals sampled. Results indicated a wide variation in the degree to which birth certificates were completed. In one hospital, 51.1% of the certificates had at least one blank, whereas in another hospital, 94.3% of the certificates had at least one blank.

Summary of Findings

Interpretation of the results of the investigation must be tempered because of the limited scope of the study. Even though the actual percents and numbers may change if a larger sample of birth records were selected, the results listed in Table 1 do tend to compare favorably with those of larger, similar investigations.

A measurable problem in Georgia is the accuracy and completion of specific medical items asked on the birth certificate. The accuracy and completeness of data are two separate but related issues, and the solution of one would tend to affect the other.

Results indicate that hospital charts may not be consulted when a birth certificate is being completed. In fact, written vital records completion procedures for the four hospitals examined were either not comparable or not incorporated into the hospitals' written rules.

TABLE 1 — Comparison of Medically Related Items on Original Birth Certificates with Those Listed on Hospital Records, 1979 Data Survey, Atlanta, GA

	Percent
Items in agreement ≥90% of time	
1. Date of birth	99.5
2. Sex	93.8
3. Birth order	92.1
4. Race	90.6
5. Number born alive less than 1 lb.	95.3
6. Number born dead 1.0-5.5 lb.	93.1
7. Number born dead more than 5.5 lb.	94.0
8. Congenital anomalies	92.8
Items in agreement ≥80% but <90% of time	
1. Mother's birthdate	85.1
2. Birth weight	80.9
3. Number born alive 1.0-5.5 lb.	88.8
4. Number born dead less than 1 lb.	81.9
5. Complications related to pregnancy	81.4
6. Birth injuries	85.9
Items in agreement ≥70% but <80% of time	
1. Number born alive more than 5.5 lb.	74.7
2. Number of living children	75.4
3. Date of last fetal death	78.9
4. Complications not related to pregnancy	79.4
5. Method of delivery	77.4
Items in agreement ≥60% but <70% of time	
1. Date of last live birth	63.0
2. Complications of labor	60.5
Items in agreement ≤35% of time	
1. Date of last normal menses	35.0
2. Month prenatal care began	21.3
3. Number of prenatal visits	12.9

The format for each hospital's records varied considerably. Thus, some items asked for on the birth certificate were not indicated on one hospital's records whereas they were on another's.

Persons responsible for the completion of vital records appear to have limited accountability, even though specific responsibilities and procedures are indicated by law, regulations, and instruction manuals.

The completion and accuracy of specific items on the birth certificate need to be strongly emphasized. Items on the birth certificate, however, should be reviewed and revised for purposes of data collection.

Finally, hospital staff and others who complete vital records with errors or omissions should receive increased personal training or advisement. Much emphasis is placed upon the accurate, complete, and timely reporting of vital records during the various training sessions conducted by Georgia DHR Vital Records staff. The responsibilities, priorities, and types of hospital personnel who actually complete the documents, however, have a direct bearing upon the accuracy and completeness of the vital records.

Summary

This and other investigations related to the quality of vital records birth data all reach basically a similar conclusion: that the reporting of medical items on birth certificates may be at times less than accurate or complete. Though the problems are complex, a responsible and cooperative effort by persons concerned with the quality of vital records information could measurably improve the reporting of birth certificate data.

Acknowledgements

The authors would like to thank the Nursing Programs Specialists and Medical Consultants of the Maternal Child Health and Primary Health Care Units for their invaluable assistance in this project.

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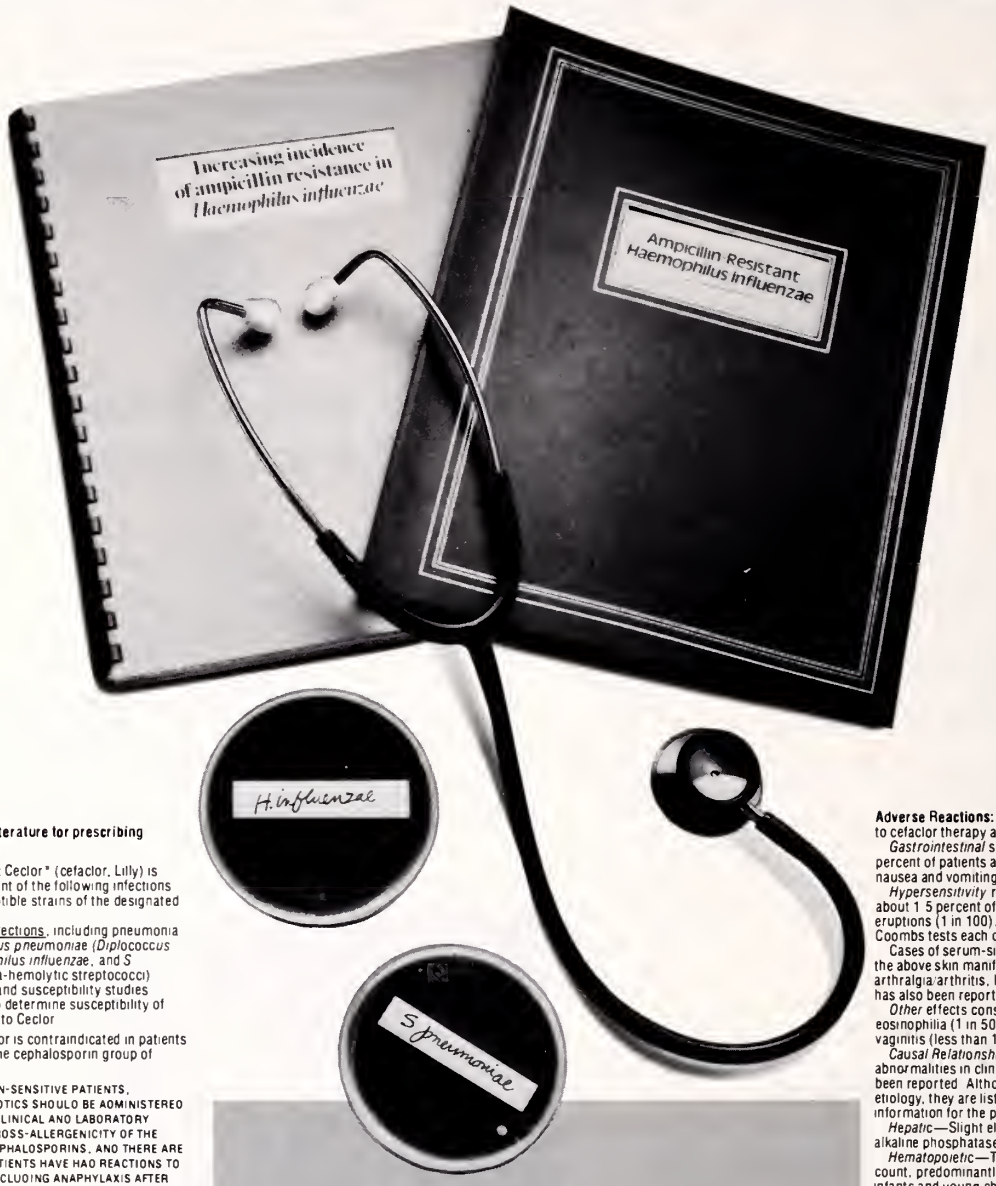
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Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

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Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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The authors describe the dangers associated with the long-term use of sulfonamides and the effects of vitamin K dietary deficiency.

Possible Sulfisoxazole and Dietary-Induced Hypoprothrombinemia in an Elderly Woman

JAMES W. COOPER, JR., PH.D., F.C.P., and JOHN F. STEGEMAN, M.D., F.A.C.P., *Athens**

Abstract

Hemorrhage due to hypoprothrombinemia resulting from dietary deficiency of vitamin K and impaired absorption of vitamin K from disturbances of normal intestinal flora from antibiotic usage have been reported. When both factors are present, the dangers are compounded. In this paper, hypoprothrombinemia with hemorrhage is described in an inadequately nourished elderly woman whose prothrombin synthesis is suspected of being further compromised by impaired intestinal absorption resulting from long-term sulfisoxazole therapy. The pertinent literature is reviewed as is the physiology of prothrombin synthesis in the liver. The treatment of hypoprothrombinemia is also reviewed.

Introduction

SULFONAMIDE PROLONGATION of prothrombin time was first reported in 1942.[1] Nineteen additional cases of sulfonamide-related hypoprothrombinemia were reported, but other factors may have contributed to the deficiency. These included anorexia nervosa, post-surgical problems, renal impairment, dietary deficit, and/or concurrent antibiotic usage.[2-8] Recently, sulfisoxazole potentiation of warfarin was reported.[9]

Report of a Case

C.R., an 87-year-old, 5′1″, 75-pound white woman, was transferred to an acute-care hospital from a long-term care facility (LTCF) because of hematuria and low blood pressure. The patient had been admitted to the LTCF 2 months previously following a stroke. The LTCF records indicated that she had received sulfisoxazole, 1.0 gm. three times daily since admission to the facility for the treatment and prophylaxis of a urinary tract infection. One week prior to hospitalization, she had also received several doses of diphenoxylate-atropine for diarrhea and prochlorperazine for nausea and emesis.

Physical examination revealed an emaciated, pale, slightly cyanotic woman with poor skin turgor. She was irritable and restless and complained of suprapubic pain. Her vital signs were: temperature 98 F° (orally), pulse 92, blood pressure 84/40. Physical findings were otherwise not remarkable, but bleeding via an indwelling catheter was noted. Laboratory studies included Hgb of 7.2 Gm%, prothrombin time 28.6 seconds (control 11.0 seconds), and BUN 99 mg%. Urinalysis showed 3+ albuminuria and gross hematuria. After removal of the Foley catheter, a cystoscopy was performed. No abnormalities were noted. The patient was treated with 5% Dextrose-Ringers Lactate solution, 3 liters per day for 2 days, 2 units of packed red cells, and phytonadione 5 mg p.o. twice daily for 3 days. Her diet was not restricted. Two days after admission to the hospital, the patient's mental status improved. Blood pressure was 110/80, prothrombin time 12.0 seconds, and BUN 67 mg%. By the fourth hospital day, the BUN was 29 mg%. The patient was returned to the LTCF with orders for a regular diet, enteral feeding supplements, and one tablet daily of

* Dr. Cooper is Associate Professor and Head, and Dr. Stegeman is a Lecturer, from the Department of Pharmacy Practice, The School of Pharmacy, University of Georgia, Athens, GA 30602. Send reprint requests to Dr. Cooper.

a multiple vitamin-mineral preparation. The catheter was not replaced.

Comment

Vitamin K is the vital ingredient in the maintenance of normal prothrombin levels. Primary vitamin K deficiency is uncommon in man due to the widespread distribution of plant (primarily) and animal sources consumed in the normal diet and to the presence of gram-positive microorganisms in the intestinal tract that synthesize vitamin K. Each source contributes approximately equally to supply man's needs.[10] Bile salts, however, are required for the absorption of the vitamin from the intestinal tract, and patients with biliary obstruction or fistula are dependent upon the addition of exogenous bile salts to insure assimilation. In malabsorption syndromes, interference with vitamin K absorption from the diseased bowel blocks the vitamin's natural role in hepatic prothrombin synthesis.

In malabsorption syndromes, interference with vitamin K absorption from the diseased bowel blocks the vitamin's natural role in hepatic prothrombin synthesis.

Although the exact minimal daily requirement for vitamin K is not known, it has been estimated to be no more than 1 microgram per kilogram of body weight. Assuming that 50% of the vitamin K ingested by a person with a normal diet is absorbed, the requirement from food sources would be only about 2 mcg/Kg. If indeed 50% of the total requirement is derived from the action of intestinal organisms, the daily dietary requirement would be reduced to about 1 mcg/Kg. The normal mixed diet of North Americans contains 300-500 mcg of vitamin K per day (i.e., several times more than an adequate supply of the vitamin).[10]

Diets deficient in vitamin K (less than 20 mcg per day in adults) will produce, after several weeks, minimal to moderate signs of prothrombin deficit (i.e., prothrombin activities of 60-90% of normal).[11] When bowel-sterilizing antibiotics (e.g., neomycin) are given, plasma prothrombin levels may be significantly reduced. Oral neomycin therapy in apoplectic patients receiving only intravenous nourishment without vitamin K supplementation has been reported to lower prothrombin activity to less than 20% of normal within 4 weeks. Self-imposed dietary restriction alone has been observed to induce hypoprothrombinemia with hemorrhage.[12]

Hypoprothrombinemia can also occur through suppression of gut bacteria by non-absorbable sulfonamides (succinylsulfathiazole and phthalylsulfathiazole).[13] The oral use of the antimicrobials carbenicillin, chloramphenicol, kanamycin, neomycin, penicillin, absorbable sulfonamides, and tetracycline will produce similar effects on prothrombin levels through intestinal suppression, plasma binding, or metabolic interaction.[14-16]

Through some unknown mechanism, vitamin K stimulates prothrombin biosynthesis in the liver. Even if normal amounts of the vitamin reach the liver, however, adequate hepatic cell function is necessary to maintain normal prothrombin concentrations in the plasma. In the case studied, liver function tests *per se* were not done, but the early correction of the prothrombin time indicated an intact vitamin K-prothrombin axis, negating any likelihood that liver dysfunction played any part in the original hypoprothrombinemia. In addition to suspected drug effect and intestinal dysfunction noted in the patient, disseminated intravascular coagulation (DIC) secondary to hypovolemia could have contributed to the deficiency of prothrombin. Determinations of fibrinogen and fibrin split products were not done, but clinical evidence of this syndrome was lacking. If present, the reversal of the patient's shocky state may have helped terminate the intravascular clotting problem. But if this had been a major contributing factor, it is debatable if the hypoprothrombinemia could have been so readily corrected.

Many drugs, including especially salicylates, are known to potentiate the effect of coumarin derivatives in interfering with the hepatic biosynthesis of prothrombin and other blood-clotting factors. These coumarin compounds, universally used in anticoagulant therapy, represent the most common cause of hypopothrombinemia, purposely produced to prevent thromboembolic complications. Patients receiving these drugs, whose prothrombin times are not carefully monitored, and who may be taking potentiating compounds unwarily, are the most likely victims of hemorrhage.

Fortunately, no matter what the cause of hypoprothrombinemia, it can be readily corrected by vitamin K_1 (phytonidione), assuming adequate liver function is present. The oral preparation will restore the prothrombin time to normal within a few hours. An intravenous form is available but offers no advantages to p.o. ingestion if there is no difficulty in swallowing and retaining the tablets. If biliary obstruction or fistula is present, however, bile salts must be added to insure absorption of the oral preparation. When severe hemorrhage increases the urgency of the situation, whole blood transfusions are sometimes required to correct the anemia and to furnish an immediate supply of prothrombin.

Conclusion

With the use of prophylactic sulfonamides on a long-term basis, special care should be taken, espe-

cially in patients with intestinal complications or who have inadequate diets, to insure against hypoprothrombinemia by furnishing supplemental sources of vitamin K.

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The author calls for marked improvements in the art of medicine.

Windowless Pain

JAMES B. CRAIG, M.D., ***Milledgeville****

As PART OF THEIR early professional training, doctors and nurses should spend some time in the hospital *as patients*. If they did, there would probably be many changes in the physical structure of hospitals, as well as in the rules, regulations, and personnel attitudes. Nowhere are these changes more needed than in the intensive care unit (ICU).

I was very healthy for the first 43 years of my medical practice. I experienced the patient side of hospital life once as an intern with an upper respiratory infection. From then until April, 1980, I worked in and administered several hospital programs. As an administrator, I viewed the workings of the hospital from an intellectual point of view.

When I was hospitalized last year for a myocardial infarction with acute pulmonary edema, my viewpoint changed. I readily saw how the *science* of medicine had come a long way. Progress in the *art* of medicine, however, seemed to have lagged considerably. I was treated as a disease and not as a human being. I know I needed to receive morphine, Lasix, and lidocaine in the emergency room, but it was just as important that I receive a reassuring smile and a wipe of my brow from a sympathetic nurse.

After a short stay in the emergency room, I was transferred to the ICU. I was too ill the first 10 or 12 hours to notice the surroundings. Then I became aware of the too-short bed and that the room was quite small, without a window or clock. I had no way of knowing whether it was day or night. This sensory deprivation has an unnerving effect and can deleteriously influence the course of one's illness.

Some time later, I again had the unfortunate experience of being a patient in one of the teaching hospitals in the state. This time I was in the surgical ICU following vascular surgery. The cubicle I was in reminded me of a stall in an auto repair shop. There was no window, picture, calendar, or clock, etc. I was there for 24 to 36 hours and was subsequently moved to the surgical floor. Thirty-six to 48 hours later, I had "acute respiratory failure" and was transferred to the coronary care unit (CCU). Again, there was no window, calendar, picture, but there was a clock. Still, I was unable to tell whether it was day or night.

After several days in this ICU, I thought I had figured out a way to stay oriented as to days and nights: I learned the name of several of my favorite nurses and which shift they were on. This did not work for long, however, since many of them then changed shifts or worked overtime.

JCAH Standards Set for Science of Medicine

The Standards of the Joint Commission on Accreditation of Hospitals (JCAH) are very detailed about requisite equipment and training of personnel. Reference is made frequently to reviews and evaluations, quality assurance, staffing patterns, communications, direct viewing of patients, alarm systems, etc. All of these tools are essential. But note that the emphasis is on the *science* of medicine and the disease. The art of medicine, meeting the patient's emotional needs, is not addressed.

The JCAH Standards do not mention how an ICU room should look, whether it should have windows, pictures, calendars, or any other objects for the reality orientation of the patient. The Standards refer to adequate space for equipment but do not specify square footage for the patient.

L. M. Wilson[1] studied the effects of windowless rooms in surgical ICUs in two hospitals in the same city. The hospitals used the same physicians and had

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similar staffing patterns. One hospital, however, had windows in the ICUs, and the other did not. After comparing 50 consecutive admissions to each ICU, Wilson found that delirium occurred twice as often in patients who were in the windowless rooms. Interestingly, he found that for patients with abnormal hemoglobin levels and/or blood urea nitrogen levels, delirium occurred three times as often in those who were in windowless rooms. He did not find any relationship between the occurrence of delirium and the medication or anesthetic the patients received. He also reported more depressive reactions in patients in windowless rooms.

Surgeons are not known for their good bedside manner, but we should not give up trying to help them improve.

P. J. Keep[2] describes many pertinent factors about stimulus deprivation in windowless rooms. He says that windowless rooms are apparently justified in ICUs on the wrong assumption that the patients are either unconscious or too ill to be aware of their surroundings. Even though we know that particular environments can result in psycho-reactive problems among patients and staff, we do little to change the conditions that cause the stress. The sensory and perceptual deprivation imposed by ICUs would be unpleasant and undesirable for well people. Consider, then, its effects on the seriously ill patient.

B. L. Collins[3] found that the most adverse reactions to a windowless environment occurred in small, restricted, and essentially static places, such as an ICU. Acceptance of the windowless environment is highest where some logical reason for it is obvious, such as in an underground railroad station or the basement of a department store.

The effects seen in persons working under conditions of perceptual deprivation include disturbance of visual and auditory vigilance, visual field changes, perceptual changes in the shape, vividness, and brightness of objects, distortion of the human face, inability to concentrate, lack of clarity in thinking, and difficulty in organizing thoughts. These effects have not been studied in hospital personnel but were studied extensively in factory workers whose light source had been changed from natural to artificial. After the lighting change, the standard of vigilance declined rapidly.

The problems associated with windowless buildings or rooms are not due to a lack of ventilation or illumination. These are taken care of by air conditioners and artificial lighting. Vaisrub[4] feels that the problem is due to an "absence of an outlet for human visual curiosity." Lavy[5] writes about the lack of windows in operating rooms and states that there is widespread feeling that the staff is often adversely affected by lack of daylight for long periods.

Psychoses Attributed to Windowless Rooms

There is evidence to support the idea that the recovery room and its routine contribute to the incidence of patient delirium following open-heart surgery. Kornfeld et al.[6] evaluated 119 random cases of open and closed-heart surgery and found that 38% of these patients experienced some type of psychosis. It was most frequently manifest by the fifth postoperative day. Often starting with illusions and progressing to visual and auditory hallucinations, it usually lasted 24 to 48 hours and often cleared shortly after the patient was transferred to a more normal hospital environment. These types of reactions are similar to the psychosis of sensory and sleep deprivation.

The investigators felt there were several important factors responsible for the psychoses. One of the most important was the postoperative open-heart recovery room itself. The recovery room was large, with four beds which were separated by curtains. No mention was made of the type of lights or whether the room had any windows, calendars, clocks, pictures, etc. Another factor was the unusual sounds of the mechanical devices, described as "sensory monotony." Some of the patients described the feeling of being chained. This was probably due to the many tubes attached to their veins and orifices. Interestingly, no delirium occurred in any children; it was postulated that their concern was more with pain than with life and death. Gender and marital status did not seem to influence the incidence of delirium. There was a high rate of delirium in patients who had double valve procedures.

Physician Attitudes

The last time I was in an ICU, the surgical staff visited me on a regular basis even though I was being treated primarily by the medical staff. I never will forget one of the junior members of the surgical staff. He would enter in a matter-of-fact manner and ask me how I was feeling. Then he would look at my chart and say in an uncomfortable, stilted way, "I know you are going to get better, I just know you are." He would then turn and walk quickly away. Because of his manner, I was convinced that he really did not mean what he said and that he said what he did because he was told to do so. I was also convinced that he thought I was going to die. I was miserable! It would have been better for him to say nothing.

Doctors and nurses should always look at and listen to a patient when making rounds. Too often they just look at the chart, monitors, and other data.

The patient is obviously more than just monitors and data on paper. Once I told a nurse that I felt as if I had pulmonary edema. She looked at me as if I were another "overly concerned" patient. Hours later, the laboratory and other tests proved that I did have pulmonary edema. I was not "overly concerned" — I just knew what was happening because I had had the same thing before.

Positive Nursing

Some people report that ICU nursing personnel are unfeeling and unsympathetic. This has not been my experience. Most of the nurses who have cared for me in ICUs have been hard working, conscientious, and dedicated. They had their hands full most of the time taking care of essentials, such as giving medication, checking IVs, blood gasses, etc. In spite of this, they impressed me as having a lot of feeling, understanding, and concern. I am convinced they know the art of medicine as well as the science.

It is important for the patient to be able to see the nurses even if it is through glass. He/she feels more secure and can motion for help in addition to using the call button. It is equally important for the nurses to be able to observe the patient through a glass in a window or door.

Intubation

One of the most frightening experiences I ever had was the first time I was intubated. I panicked when I found out I could not speak. I was immediately reminded that the procedure had been explained to me earlier. This offered me no consolation. I was given a pencil and paper, and I quickly started writing many questions. An interesting thing happened when I gave the questions to a nearby person. She started *writing* the answers. I indicated to her to talk, that I could hear.

Since then, I have thought many times about this experience. I was frightened, but I was able to write questions and get answers. But what about the person who is unable to write. I feel that someone should develop flashcards which ask simple questions — something similar to international road signs but using pictures, such as a bedpan, urinal, syringe, pill, etc.

Humor raises its head in all situations, even those that are frightening. The first time I was intubated I got mad at the doctor and threatened to sue. He did not pay any attention to me, so I told him if he did not listen I would get the ACLU (American Civil Liberties Union) after him. He still ignored me. In talking with him later, I found out that he did not know what the ACLU was. This physician, who was from Pakistan, thought it was some type of psychiatric organization!

The second time I was intubated, I was not nearly so frightened because I knew what to expect. The pulmonologist was a caring person who explained in detail what was going to happen and why the procedure was necessary.

Recommendations

I feel that the JCAH should require windows in all ICUs. The Standards should also require enough square footage so that even with equipment, the room will not be cramped. Individual rooms should offer some degree of privacy, perhaps a door that could be closed. Monitoring equipment should be maintained outside of the room whenever possible.

To prevent some of the ill effects of sensory deprivation, each room should have a patient-controlled radio and/or television. The patient should be able to see a large clock that indicates AM and PM and an easily read calendar. When possible, the patient should be allowed more mobility.

An alternative to this would be some type of closed circuit television from either in-house or commercial cable television. The channel should include the day, month, year, time (AM and PM), weather conditions, and some local and national news. Background music would be optional. This could be controlled by the patient and/or the staff.

Above all, the major thing to remember is to practice the art of medicine, which includes dealing with the person and not just the disease.

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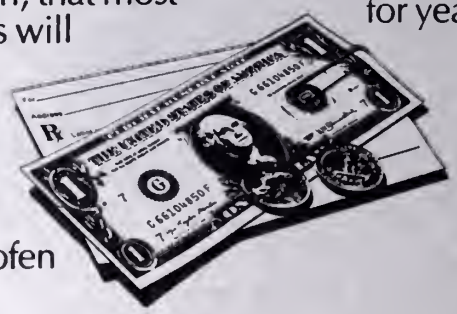
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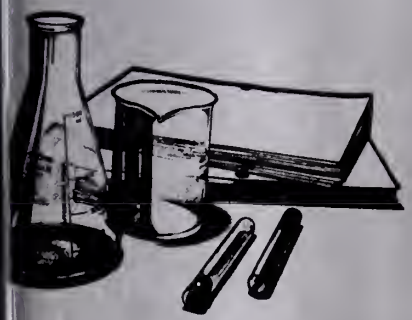
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WARNINGS: Anephylectoid reections have occurred in patients hypersensitive to espirin (see CONTRAINDICATIONS). Peptic ulceration end gastrointestinel bleeding, sometimes severe, heve been reported. Peptic ulceration end gestrointestinal bleeding, sometimes severe, have been reported. Peptic ulceretion, perforation, or gastrointestinal bleeding can end fetelly; however, an esseciation hes not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal trect diseese, end only after consulting the ADVERSE REACTIONS.

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PRECAUTIONS: Blurred and/or dimlnished vision, scotomata, and/or changes in color vision heve been reported. If developed, discontinue Rufen end edminister an ophthelmologic examination.

Fluid retention end edema have been associated with Rufen; caution should be used in patients with e history of cerdiac decompensetion.

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To avoid execerbetion of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when edding Rufen.

DRUG INTERACTION: *Coumarin-type enticoegulents.* The physicien should be cautious when edministering Rufen to patients on enticoegulents.

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Gastrointestinal: The most frequent edverse reection is gastrointestinal (4% to 16%). Includes neusea*, epigastlric pain*, heartburn*, diarrhea, ebdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI trect (bloating and flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapuler type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenel ulcer with bleeding and/or perforation, hemorrhage, melene. **Central Nervous System:** depression, insomnie. **Dermatologic:** vesiculobullous eruptions, urticerie, erythema multiforme. **Special Senses:** emblyopia (see PRECAUTIONS). **Hematologic:** leukopenie, decreesed hemoglobin end hematocrit. **Cardiovascular:** congestive heart feilure in patients with marginal cardiec function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jeundice, ebnormal liver function. **Central Nervous System:** peresthesias, hallucinations, dream abnormelities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopie, optic neuritis. **Hemetologic:** hemolytic anemia, thrombocytopenia, granulocytopenia bleeding episodes. **Allergic:** fever, serum sickness, lupus erythemetosus syndrome. **Endocrine:** gynecomastia, hypoglycemie. **Cardiovascular:** errhythmies (Sinus tachycardia, bradycardia, and pelpitetions). **Renal:** decreased creetinine clearance, polyuria, azotemia.

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In The Beginning Was The Word

When a philosopher thinks of Christmas, he is apt to turn to the most philosophic of the Gospels — not to Matthew, who roots Jesus in Jewish history as the descendant of David; not to Mark, who begins with the prophets of Israel who expect the Messiah; nor to Luke, who tells the story of the expected birth, with the celebration of *"a light to lighten the Gentiles, and the glory of thy people Israel"* (Luke 2:32) — but to the Gospel of John. This Gospel uses a cosmic principle long known among the philosophers of Greece as the "logos,"[1] and identifies the "word" or "reason" or "intelligence" with the Creator of heaven and earth. A philosopher meditating on the meaning of Christmas does not need to invent or contrive an interpretation. It is in John's Gospel:

> *In the beginning was the Word, and the Word was with God, and the Word was God. . . . All things were made by him; and without him was not anything made that was made. In him was life; and the life was the light of men. And the light shineth in the darkness; and the darkness comprehended it not.* (John 1:1, 3-5)[2]

A study of the Greek original from which this King James translation comes reveals three interesting points. The first is that just as the Hebrew Bible starts "In the beginning, God . . . ," as though it tells the story of how the earth and heaven came to be, philosophically, beginning is "arche" or principle.[3] Religion is philosophically important because it turns people to the first or ultimate principle, that presupposed by all thought, and without which there would be nothing else. The second point is that another way for us to translate "the darkness comprehended it not" is perhaps "the darkness could not put out the light." In the struggle between the light and the darkness, a Zoroastrian[4] cosmic duality, the light (or good) will triumph over the darkness (or evil). The third thing is most important: because John invoked the logos which is *"the light that enlighteneth every man,"* there is a way to God through reason above all the particular faiths of mankind.

Is Christmas only for Christians? Can it have meaning for a Jew, a Moslem, a Taoist Chinese, a Buddhist, or a Hindu? If the meaning were stated philosophically by John in the beginning of his Gospel, the answer is yes. Philosophically, what we celebrate at Christmas is the ground of our hope:[5] that things are intelligible. Personal and world events are indeed often in a state of confusion, a bewildering chaos that seems to make no sense. But reason in us demands that some sense be found, and by persistence, the darkness lifts and there is light.

One of the greatest Jewish philosophers of our age, Martin Buber, writes, "From my youth onwards I have found in Jesus my great brother. . . . I am more than ever certain that a great place belongs to him in Israel's history of faith and that this place cannot be described by any of the usual categories."[6] The category "logos" is a philosopher's way of affirming the faith in intelligibility. It is a universal way. Writes Buber, "It [the Logos] is the teaching of a universal continuity of meaning whose principle appears in China as Tao, in India as Rita, in Iran as Urta (usually

pronounced Asha), and in Greece as Dike. Heavenly powers, we are told, have entrusted to man the pattern of right behavior. But this is not an order they have devised for man; it is their own order. Heaven does not wish to establish a special order for earth; it wishes to let it partake in its own order. The moral order is identical with the cosmic. The totality of existing beings is by its nature *one* society with *one* code of laws.[7]

The Christian way of saying this is that *". . . the Word was made flesh,*[8] *and dwelt among us, (and we beheld his glory, the glory as of the only begotten Son of the Father,) full of grace and truth."* (John 1:14)

The message of the angels at Bethlehem is:

> *Glory to God in the highest, and on earth peace, good will toward men.* (Luke 2:14)

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Notes and References

1. The term "logos" in its philosophic use refers to the ultimate intelligence or cosmic reason. Its extent is universal.
2. In this quotation from John's Gospel, the Greek translation, Word, may be replaced by logos.
3. The word "principle" can be replaced by the words "ultimate principle."
4. Zoroastra saw a cosmic duality as the struggle between good and evil as signified by light and darkness. In his teachings, the light will ultimately win.
5. "The ground of our hope" means the ultimate principle upon which we place hope for order and purpose in the universe. As used here, it could mean God with a universal connotation.
6. Friedman MS. Martin Buber: The Life of Dialogue. Chicago: The University of Chicago Press, 1955;275.
7. Buber M. Eclipse of God: Studies in the Relation Between Religion and Philosophy. New York: Harper, TB12, 1952:99.
8. This phrase is another way of referring to the incarnation of God in Jesus Christ.

Let Us Keep Christmas

Whatever else be lost among the years,
Let us keep Christmas still a shining thing:
Whatever doubts assail us, or what fears,
Let us hold close one day, remembering
Its poignant meaning for the hearts of men.
Let us get back our childlike faith again.

Grace Noll Crowell

To a Snowflake

What heart could have thought you?
Past our devisal
(O filigree petal!)
Fashioned so purely,
Fragilely, surely,
From what Paradisal
Imagineless metal,
Too costly for cost?
Who hammered you, wrought you,
From argentine vapor?—
"God was my shaper.
Passing surmisal,
He hammered, He wrought me,
From curled silver vapor,
To lust of his mind:—
Thou couldst not have thought
So purely, so palely,
Tinily, surely,
Mightily, frailly,
Insculped and embossed,
With His hammer of wind,
And His graver of frost."

Francis Thompson

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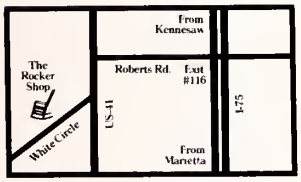
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Retirement Plans for Professional Corporations Which Act as Partners

WILLIAM A. GRAY, *Atlanta**

PRACTICING MEDICINE in the form of a professional corporation has been an accepted approach by physicians for over a decade. Professional corporations allow many opportunities and protections not available to partnerships.

Sometimes, however, it is not feasible to change a medical partnership to a professional corporation. For example, one or more of the partners may refuse to incorporate due to ethical considerations, patient-relation concerns, tradition, or expense. Similarly, partners may be unable to reach agreement as to the type of retirement plan and fringe benefits that the corporation will provide due to their differing ages, economic circumstances, or financial goals. For example, the younger physician may have little interest in deferring income, whereas the older physician may want to shelter his higher income and make significant financial preparations for retirement. In situations such as these, it may be appropriate to consider retaining the partnership and allowing individual partners to form their own professional corporations which will serve as partners.

Benefits of Corporate Retirement Plans

The partnership which consists of both individual physicians and professional corporations allows each physician to design his or her own fringe benefit package to meet varying needs and goals. Perhaps the biggest benefit to those doctors who choose to form a professional corporation is the corporation's ability to adopt qualified corporate retirement plans. Contributions to such plans are deductible by the corporation and non-taxable to the employee or employees. An employee is taxed only when benefits are ultimately paid to him or her by the plans, and often the tax will be at favored rates. Earnings of such plans accumulate tax-free.

One type of qualified retirement plan, generally known as a Keogh plan,[1] is available to physicians practicing in partnership form. Keogh plans, however, are much more restrictive than corporate qualified plans. For example, most Keogh plans provide that *all* participants (including the non-physician staff members) must be fully vested[2] in their benefits, so that if a participant resigns before retirement, he or she will receive the full amount of his or her accrued benefits; corporate plans generally provide a sliding scale for vesting which, for example,

* Prepared at the request of the Medical Association of Georgia. Mr. Gray is an associate in the firm of Powell, Goldstein, Frazer & Murphy, General Counsel to the Association, 1100 C & S National Bank Building, Atlanta, GA 30335.

1. A Keogh plan is a retirement plan which includes sole proprietors or partners as participants. Beginning in 1982, Keogh plans will have a $15,000 per year contribution limit for individuals. They are subject to numerous restrictions to which corporate retirement plans are not subject.

2. "Vesting" refers to the amount of accruals to a participant's account which may be claimed by the participant in the event of an early termination. For example, an employee who has $2,000 in his retirement account and terminates employment when he is 40% vested will receive an $800 payment.

does not permit the participant to receive the full amount of his or her accrued benefit until the eleventh year of service with the corporation. Keogh plans generally must provide for custody of contributed funds by a bank, insurance company, or mutual fund; corporate plans, if desired, can be trusteed by the doctor. Corporate plans can make loans of plan assets to the physician; Keogh plans cannot. Beginning in 1982, Keogh plans must limit annual contributions for each participant to the lesser of 15% of earned income or $15,000; corporate plans can be established which will permit annual additions for each participant in an amount equal to the lesser of 25% of compensation or $41,500 (in 1981), which figure will be adjusted annually to reflect inflation. For doctors of about 50 years of age or above, it is often possible to establish corporate plans which will allow a significantly higher annual contribution.

Qualified corporate retirement plans can be adopted by a single-doctor professional corporation which acts as a partner in a medical partnership. Until late 1980, it appeared that the retirement plans of single-doctor professional corporations which acted as partners in a medical practice and employed only one person — the doctor — enjoyed a significant advantage over any other kind of qualified retirement plan. That advantage was that the retirement plan for the single-employee corporate partner needed to provide only for the doctor. No nurses, receptionists, or bookkeepers had to be included, according to the courts which interpreted the statutes covering retirement plans, because they were considered to be employees of the partnership instead of the corporation. As a result of this judicial interpretation, numerous partnerships of professional corporations were formed in order to avoid retirement plan contributions for non-physician staff members.

Congressional Reaction

This practice was brought to a halt in late 1980 by legislation commonly known as the *Kiddie-Garland* Act,[3] the name being taken from the two major cases in this area. Basically, the *Kiddie-Garland* Act required that the contributions or benefits made on behalf of any person practicing in a professional corporation be no more generous than the contributions or benefits provided to the non-physician staff members, such as nurses and receptionists employed by the partnership which has been formed by the professional corporations to serve the professional corporations. As a result of the *Kiddie-Garland* Act, most people thought that partnerships of professional corporations could no longer be used as a device to reduce retirement plan costs.

Practical Effect of Legislation

As a result of two recent I.R.S. rulings, Revenue Rulings 81-105 and 81-202, the I.R.S. has shown that partnerships of professional corporations are still a viable option for providing retirement plan flexibility for the physicians at a low cost of funding for non-physician staff members employed by the partnership. The key is in the language "contributions or benefits" contained in the Internal Revenue Code. Revenue Rulings 81-105 and 81-202 make it clear that, in comparing staff plans with physicians' plans, it is not necessary to compare only contributions to contributions or benefits to benefits. The benefits provided under the staff plan can be compared with contributions made under the physicians' plans. In other words, a plan which permits a certain defined *contribution* for a physician is not necessarily more generous than a plan which provides a comparable defined *benefit* to the staff.

In making such a benefits-contributions comparison, certain actuarial factors can generally be used to reduce the costs of the staff plan without reducing contribu-

3. P.L. 96-613, Section 5(c) (December 28, 1980) and P.L. 96-605, Section 201(a) (December 28, 1980), which added Internal Revenue Code Section 414(m).

tions to the physicians' plans.[4] As a result, if a defined benefit pension plan is established for non-physician staff members employed by the partnership and defined contribution plans are established for those professional corporations that wish to do so, the actuarial adjustments and credits provided for Social Security contributions can result in a relatively inexpensive plan for the staff members, while allowing the desired level of contributions for the physicians.

The exact costs of this program will depend on the demographics of a particular practice's payroll and the goals of the physicians. However, as an example of the costs involved, a recent report prepared by this firm in conjunction with Hazelhurst & Associates, Inc., Consulting and Actuarial Services, showed that in a typical practice, at least 15% of salary could be contributed annually to the retirement plans of those doctors who wished to do so, while only 2.7% of salary was being contributed to a retirement plan for the non-physician staff members. About $300,000 annually was allocated to the physicians in the hypothetical practice being studied, while only $4,100 annually was allocated to non-physicians.

Conclusion

In light of Congress' recent increase in Keogh plan limits from $7,500 per year to $15,000 per year, many doctors who would otherwise have shown an interest in using a professional corporation will choose not to do so. However, the flexibility, limited liability, and tax advantages of partnerships of professional corporations still make them a viable option for many professionals.

4. For example, the fact that staff members tend to be younger and have a higher turn-over than physicians reduces the cost of providing benefits in a defined benefit plan for the staff.

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Oat Cell Carcinoma — The Importance of the Team Approach

JOHN THOMAS WEST, M.D., F.A.C.S., *LaGrange**

Introduction

SMALL CELL, undifferentiated carcinoma, often called oat cell carcinoma, has become one of the more common varieties of primary lung cancers. Because of this and because of this tumor's unique biological characteristics, it has attracted much attention recently from a wide spectrum of oncologic disciplines.

Background

In a 1969 report by Kato et al.,[1] oat cell cancer of the lung comprised only 10% of the primary lung cancers in the 1300 cases they studied. Surgical removal of the tumor was considered to be the treatment of choice in all "operable" cases, irrespective of histologic type. Thus, they found that of 138 cases of oat cell carcinoma of the lung, 84 were operable and in 37, resection was carried out with the intent of cure. There were two long-term survivors from these 84 cases. The meager survival rate of only 1.6% of all oat cell cancer patients and only 2.3% of the "operable" cases was better than most surgeons were able to report, and better than could be expected from the chemotherapy available then.

Current Trends

Much has changed in this area in the last decade. Oat cell cancer now accounts for approximately 20% of all primary lung cancers. New agents for treating disseminated cancer have become available, and a better understanding of more effective ways of administering cancer chemotherapy is at hand. It is now generally accepted that oat cell cancer is almost always widely disseminated by the time it is first diagnosed, and it is understood that any treatment that does not include systemic treatment of the overt and the occult metastases has little chance of success. Prior to the use of combining radiation and chemotherapy, the mean survival of the patient with oat cell cancer was less than 6 months from the time of diagnosis. In LaGrange, GA, as elsewhere in the United States, with the use of modern drug and radiation therapy, survival for more than a year after diagnosis has become fairly common. Survival for more than 2 years with no evidence of persistent cancer has been accomplished in a number of instances.

Therefore, when clinical and roentgenographic evidence of primary lung cancer is seen, it becomes crucial that a correct histologic (or sometimes cytologic) characterization of the tumor be made before an effective treatment can be planned.

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Prepared at the request of the Georgia Division, American Cancer Society. Others wishing to contribute papers to this page are invited to send them to David B. Roberts, M.D., 2400 13th St., Columbus, GA 31906.

If one knows in advance that the shadow seen on the chest x-ray is small cell, undifferentiated cancer, one then knows that thoracotomy is not necessary. Because of this, we need to make every possible effort to have a definite histologic or cytologic diagnosis before a decision is made to open the chest. Bronchoscopy with pinch, brush, and lavage specimens or trans-bronchial parenchymal lung biopsy may provide the answer. If these procedures fail to provide a definitive pathologic diagnosis, percutaneous needle biopsy of the lung lesion may provide the necessary information. Occasionally, mediastinoscopy or scalene lymph node biopsy may be required. But sometimes all these methods fail, and only thoracotomy will then provide the answer as to whether the patient need be treated by surgery, radiation, or a combination of radiation and chemotherapy.

The Team Approach

In making the diagnosis of oat cell cancer using the modalities noted, we may use the services of any or all of the following: a thoracic endoscopist, able to obtain diagnostic material through a bronchoscope; a diagnostic radiologist, able to guide a needle into a nodule in the lung using television monitoring or with the even greater precision provided by monitoring the needle biopsy with computerized tomographic visualization; a surgeon, to obtain diagnostic material from a supraclavicular lymph node, from mediastinoscopy or from open thoracotomy. And even when portions of the tumor are obtained for study, the job for the pathologist may not be an easy one. Disagreement among pathologists about the interpretation of material from an oat cell carcinoma has been common in our experience. Obviously, a team approach is called for in determining the correct diagnosis.

The oat cell lung cancer patient can best be served by using all necessary members of the oncology team to correctly diagnose, treat, and support the patient along the road to recovery.

Once the diagnosis of oat cell cancer is established, treatment will also call for team work, for more than one therapeutic discipline will be involved. The responsiveness of the primary oat cell lesion in the chest to radiotherapy has long been appreciated. There is now abundant evidence that metastases of oat cell cancer to the brain (a common cause of the ultimate failure to control this cancer) can be effectively treated by radiotherapy; and the clinical appearance of brain metastases can be delayed or prevented by prophylactic irradiation of the brain. Yet, as important as radiotherapy may be in the control of the primary lesion and the brain metastases, nothing will be more important to the long-term control of this malignancy than the effective use of chemotherapeutic agents. Multiple chemotherapeutic agents provide a greater chance of success than does any single agent. An especially promising combination is one that includes doxorubicin; the alkylating agent, cyclophosphomide; a vinca alkaloid, vincristine; and methotrexate, an anti-metabolite. Some chemotherapists favor the use of nitrosoureas in addition to a combination of drugs as a means of reaching cancer cells that have penetrated into the central nervous system, instead of using radiation therapy for this purpose.

Chemical Toxicities

As one might imagine, such combinations of potent drugs and radiotherapy are likely to produce toxicities that will require special attention. Myelosuppression and gastro-intestinal toxicity are well known to all of us who have observed patients receiving cancer chemotherapy, and the requirement for diligence in looking for and treating the life-threatening complications that may come from these particular areas is appreciated. The neurotoxicity of the vinca alkaloids is well known and must be kept in mind. The cardiotoxicity of doxorubicin deserves special attention. Even when one stays below the accepted cumulative dose for this drug and thus avoids fatal cardiomyopathy, there may yet occur sufficient damage to the myocar-

dium with the usually tolerated dose that careful management of the patient by a cardiologist may be required. Some of the subtle, yet very significant changes in cardiac function may require nuclear cardiology studies for their demonstration and quantitative assessment. So again, in the management of the side effects of treatment, team work is essential.

Thus we see that the diagnosis and management of oat cell cancer and the subsequent rehabilitation of the patient who has been treated for this now fairly common neoplasm requires diverse skills. The patient can best be served by using all necessary members of the oncology team to correctly diagnose, treat, and support the patient along the road to recovery.

The importance of these considerations is magnified by the fact that oat cell cancer of the lung has become a common tumor, comprising 23% of all primary lung cancers in a recent review of the Community Tumor Registry at the Enoch Callaway Cancer Clinic, in LaGrange. This is a striking contrast to the 10% of all lung cancers in the 1969 series of Kato et al. This very aggressive tumor, the occurrence of which is closely tied to cigarette smoking, is likely to become even more common in the next few years. We will probably have more opportunities than we would like to confront this very difficult and different type of lung cancer. When we do, let us remember to use the whole team.

Reference

1. Kato Y, Ferguson TB, Bennett DE, Buford T. Oat cell carcinoma of the lung: a review of 138 cases. Cancer 1969;23:517-524.

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Vasodilator Therapy — Its Usefulness and Limitations

ABDULLA M. ABDULLA, M.D., F.A.C.C., *Augusta**

HEART FAILURE occurs when the heart is unable to pump a sufficient amount of blood to meet the body's metabolic needs. This condition triggers sympathetic reflexes which can improve cardiac output by increasing the heart rate and contractility and enhancing ventricular filling (preload) by venoconstriction and retention of sodium and water. These reflexes are favorable in milder, nonprogressive forms of heart failure since they are turned off as soon as the cardiac output is raised by the reflexes themselves or by chemical therapy (e.g., digitalis). In cases of severe failure, however, these sympathetic reflexes are ineffective. Moreover, they can be detrimental and potentially lethal by the continuous venous constriction and over expansion of the intravascular volume which can result in pulmonary, visceral, and peripheral congestion and edema.[1] Although diuretics may be invaluable in reducing the intravascular volume, they do not solve the underlying problems and may be ineffective in eliminating the symptoms and signs of generalized edema and/or congestion. Furthermore, adequate perfusion of the brain and heart is maintained by arteriolar constriction and reduced flow to other, relatively non-vital organs. Such constriction increases aortic impedance and afterload, thus impairing left ventricular (LV) emptying and facilitating progressive myocardial dysfunction.[2] Thus, vasoconstriction is a potentially beneficial feedback mechanism in early, mild, or reversible forms of heart failure, but plays a self-destructive role in advanced heart failure patients who are unresponsive to conventional treatment with digitalis and diuretics. The understanding of this pathophysiologic concept is vital if one is to use vasodilators safely.

Varieties of Vasodilators

Vasodilators cause dilatation of the veins, arterioles, or both. Venous dilators such as nitroglycerin and isosorbide dinitrate are useful in lowering LV filling pressure and relieving symptoms and signs of increasing preload (dyspnea, pulmonary edema, etc.). They have relatively little effect, however, on cardiac output. On the other hand, arteriolar dilators, such as hydralazine, can reduce the resistance to LV emptying and increase cardiac output, but they do little to reduce pulmonary congestion. Finally, combined arteriolar and venous dilators (prazosin, captopril, morphine sulphate, nitroprusside, and a combination of hydralazine and nitrate) are capable of relieving pulmonary congestion and also increasing the cardiac output.[3, 4]

* Dr. Abdulla is Associate Professor of Medicine, Medical College of Georgia, and Teaching Scholar, American Heart Association. Address reprints to him at the Hemodynamics Section, Medical College of Georgia, Augusta, GA 30912. Articles for this page are sponsored and approved by the American Heart Association, Georgia Affiliate. Those wishing to contribute papers to this page are invited to send them to Dr. Miltiadis Stefadouros, "Heart Page" Editor, Section of Cardiology, Dept. of Medicine, MCG, Augusta, GA 30912.

Contraindications

Before discussing the indications for vasodilator therapy, it is appropriate to mention conditions in which such therapy is not beneficial and may even be potentially harmful. Vasodilators are not indicated for patients with mild to moderate chronic heart failure whose symptoms and signs of pulmonary congestion and reduced cardiac output are alleviated by digitalis, diuretics, salt restriction, and rest. Indeed, vasodilators can produce adverse reactions (hypotension, lethargy, fatigue, oliguria, azotemia, etc.) when they are inappropriately prescribed in patients without objective evidence of an expanded intravascular volume (radiologic signs of failure, rales, hepatomegaly, engorged neck veins, positive hepatojugular reflux, peripheral edema, etc.) or depressed cardiac function (tachycardia, S3 gallop, pre-renal azotemia, abnormal echographic and isotopic studies, etc.). They are also not indicated when heart failure is due to a tachyarrhythmia. Therapy in such cases should of course be aimed at the rhythm disturbance.

Indications

Vasodilators are indicated whenever the symptoms and signs of chronic heart failure persist with conventional therapy. Monitoring the patient's response with serial history and physical examinations, chest x-ray, and laboratory tests (SMA-18 in cases of hepatic congestion, renal insufficiency, systolic time intervals, nuclear angiograms, noninvasive measurement of wedge pressure, echocardiography, blood volume estimation, etc.) is desired. The frequency and type of examination should be tailored to specific needs, severity of heart failure, symptomatic response, or the appearance of adverse reactions. The tests may identify patients who experience "tachyphylaxis" to vasodilator therapy, necessitating adjustment of the dose or substitution of vasodilator drugs. The physician should become familiar with the potential side effects of specific vasodilator drugs (i.e., lupus-like syndrome with hydralazine, proteinuria with captopril, gastrointestinal distress, significant hypotension, etc.) and make alterations as necessary. In addition, the physician should be aware that nitrates may be less effective in patients with significant peripheral edema because the high interstitial pressure may block the drug's venodilating effect. These patients are more responsive to nitrate treatment after the peripheral edema is reduced. Also, an understanding of drug interaction is important, because agents like indomethacin, which blocks prostaglandin activity, may blunt the venodilating effects of nitroglycerin.

Since digitalis does not raise the cardiac output within the first few hours of administration, vasodilators may be considered as the first line of treatment when the heart failure is acute and dictates immediate sympathetic and hemodynamic relief. The following are examples: (1) acute pulmonary edema may be treated with morphine and furosemide, both of which have powerful vasodilating effects that are apparent within minutes of administration. Sublingual or intravenous nitroglycerin may be used when conventional therapy fails and the diuretic effects of furosemide are insufficient to relieve pulmonary edema; (2) acute mitral or aortic regurgitation or ruptured ventricular septum, complicated by heart failure, may be initially treated with intravenous nitroprusside pending surgery; (3) severe hypertension complicated by pulmonary edema, angina, or myocardial infarction; (4) pump failure complicating acute myocardial infarction; (5) perioperative pump failure; and (6) congestive cardiomyopathy presenting with significant symptoms of low output and/or pulmonary congestion. Intravenous nitroprusside is indicated in #3, while nitroprusside plus an inotropic agent such as dobutamine or dopamine are indicated in #4, #5, and possibly #6. Less than severe failure due to congestive cardiomyopathy may be treated with oral vasodilators. Digitalis should also be given for subsequent beneficial positive inotropic effects. Hemodynamic monitoring with an arterial line and/or a balloon Swan-Ganz pulmonary catheter is highly recommended when intravenous nitroprusside is used, particularly in patients with marginal or low blood pressure. After stabilizing the patient with parenteral therapy, oral vasodilator therapy is usually started.

In one long-term study,[5] it was shown that 80% of patients with chronic refractory failure (NYHA Class III or IV) demonstrated symptomatic improvement with vasodilator therapy in the acute stages. In about 25%, vasodilator therapy had to be discontinued because of adverse effects, while about 50% were maintained in a functional Class I or II. Thus, the study confirms the efficacy of vasodilator therapy in improving the quality of life. However, its long-term beneficial effects are unknown. Also, it remains to be shown whether vasodilator drugs can prolong life in chronic heart failure, a disease that is known to carry a 50% mortality over 5 years.

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president's letter



Family Care of Patients

INVOLVEMENT OF THE FAMILY in institutional patient care is generally discouraged under our system of acute and chronic care hospitals and nursing homes. In some less industrialized societies, parts of China, for example, the family brings the patient to the hospital and stays to cook, feed, and care for him/her. The professionals perform their tasks and teach family members the special skills they will need to use when the patient returns home.

This concept is being used with great success in pilot programs in the U.S. involving subacute care institutions. It holds promise for wider use and additional applications. The potential cost savings are enormous.

"Family involvement" may just be an idea whose time is so far past, that it has come around again.

L. Newton Turk III M.D.

L. Newton Turk, III, M.D.
President, M.A.G.

NOTABLES

The Crawford W. Long Medical Society reported that Mrs. Eula Simpson was presented an award as Nurse-of-the-Year-1981 for St. Mary's Hospital.

DEATHS

Willard R. Golsan, M.D.

Willard R. Golsan, M.D., of Macon, died on October 16 at the age of 80. Dr. Golsan graduated from Emory University in 1923 and the Medical College of Georgia in 1927. He began his urology practice in 1930 in Macon where he served as chief of surgical service, chief of the urological section, president of the staff, and member of the Executive Committee of Macon Hospital. Dr. Golsan was a member and past president of the Bibb County Medical Society, the Georgia Urological Association, member and past first vice president of the MAG, a member of the southeastern section of the American Urological Association, the Georgia Surgical Society, and a Fellow of the American College of Surgeons.

Survivors include several cousins.

Lemuel P. James, M.D.

Macon physician, Lemuel P. James, died at the age of 66 on October 19. Dr. James had practiced medicine in Macon since 1946 and had practiced industrial medicine at Robins Air Force Base for 20 years. He was a graduate of the University of Georgia and Tulane Medical College.

Survivors include his wife, one daughter, and two grandchildren.

James W. Knowlton, M.D.

At the age of 46, Toccoa surgeon, James W. Knowlton, died on September 30. A Birmingham, Alabama, native, Dr. Knowlton had lived in Toccoa for 14 years. He was a graduate of premedical and medical schools at Emory University.

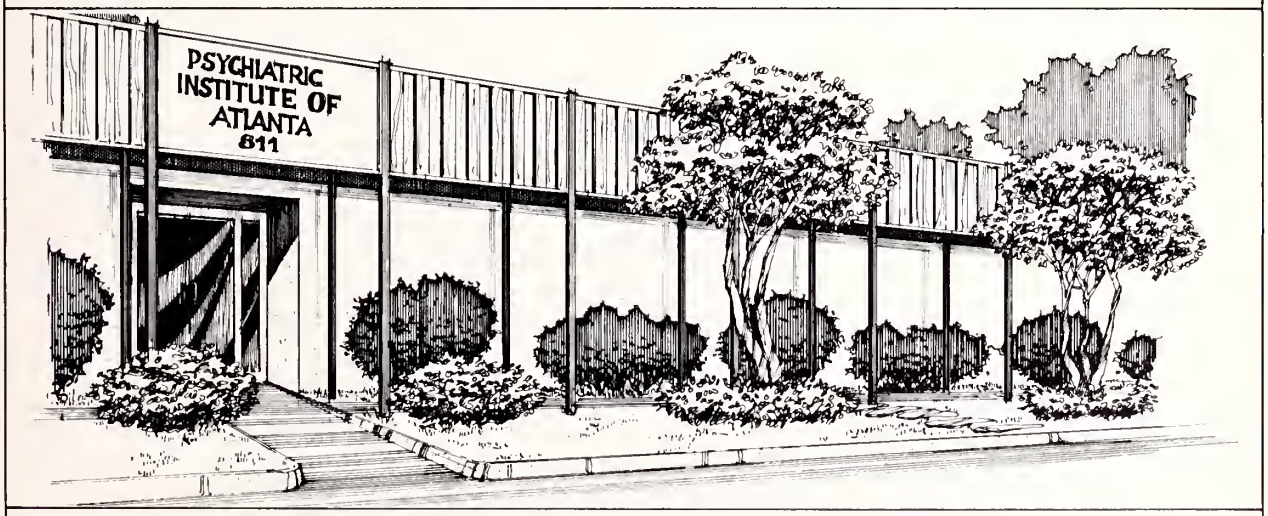
Survivors include his wife, one daughter, two sons, his mother, and one brother.

H. G. Mealing, M.D.

H. G. Mealing, M.D., 83, of Augusta, died on October 1. He practiced internal medicine up to the time of his death and taught at the Medical College of Georgia.

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> Soter NA, Wasserman SI, Austen KF. Cold urticaria release into circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

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in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults. Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110



Bactrim™ succeeds

in recurrent urinary tract infections*

from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS
160 mg trimethoprim and 800 mg sulfamethoxazole
DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

ROCHE®

*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Branchitis and pneumania caused by S. pneumoniae (formerly D. pneumaniae)
Otitis media caused by S. pneumaniae (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic branchitis caused by *H. influenzae*.*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis* (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ompicillin class. However, clinicol triols demanstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anophylactoid) reactions have been reported in patients on penicillin. Although onophyloxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cepholosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway manogement, including intubation, should also be administered as indicated.

Precautions Pralonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take oppropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Becouse animal repraduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclocillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demanstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vamiting (in oppraximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombacytopenia, thrambacytapenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discantinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiatic therapy generolly, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemalytic streptococcol infections, at least 10 days' treatment is recammended to guord against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclocillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d body weight > 20 kg (44 lbs) 250 mg q.i.d
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d	50 mg/kg/day q.i.d
Chronic Infections	500 mg q.i.d	100 mg/kg/day q.i.d
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults
†depending on severity

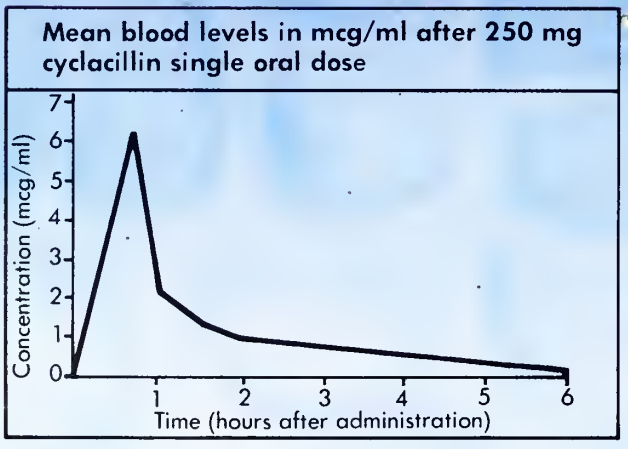
Wyeth Laboratories
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Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



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- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin.

*Based on $T^{\frac{1}{2}}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible orgonisms.

See important information on preceding page.

CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

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